



*Integrated
Environmental
Solutions*

222 South Riverside Plaza
Suite 820
Chicago, IL 60606
Telephone: 312-575-0200
Fax: 312-575-0300

QUARTERLY MONITORING REPORT 2ND QUARTER 2001

L.E.CARPENTER & COMPANY
WHARTON, NEW JERSEY

USEPA ID# NJD002168748

July 2001

Nicholas J. Clevett
Project Manager

James J. Dexter, C.P.G.
Project Coordinator *for*

346009



Table of Contents

1.0 INTRODUCTION.....	1
2.0 MONTHLY EFR ACTIVITIES.....	2
2.1 INTRODUCTION	2
2.2 APPARENT FREE PRODUCT TRENDS	3
2.2.1 Western Region of Free Product.....	3
2.2.2 Western-Central Region of Free Product	4
2.2.3 Eastern-Central Region of Free Product	4
2.2.4 Eastern Region of Free Product.....	4
2.2.5 Site Total Apparent Free Product Area.....	4
2.3 RECOVERED FREE PRODUCT VOLUME ESTIMATIONS	5
3.0 QUARTERLY GROUNDWATER MONITORING	6
4.0 WATER TABLE ELEVATIONS	8
5.0 SITE INVESTIGATION AND REMEDIAL ACTIONS	9
5.1 MW19/HOT SPOT 1 AREA.....	9
5.2 FREE PRODUCT LAYER	9
5.3 HOT SPOT B & C	10
5.4 MONITORED NATURAL ATTENUATION (MNA)	10

List of Figures

Figure 1	Site Location Map
Figure 2	Site Plan with Well Locations
Figure 3	EFR Summary Figures
Figure 4	Site Wide Shallow Aquifer Potentiometric Surface Map
Figure 5	MW19/Hot Spot 1 Shallow Aquifer Potentiometric Surface Map

List of Tables

Table 1	Free Product Recovery
Table 2	Regional Apparent Free Product Trends
Table 3	Monthly Free Product Gauging Logs and Volumetric Extraction Calculations
Table 4	Current Quarterly Groundwater Monitoring Protocol
Table 5	Quarterly Groundwater Monitoring Data
Table 6	Quarterly Water Level Elevations

List of Appendices

Appendix A	Report Certification
Appendix B	Apparent Free Product Volume Trend Charts
Appendix C	Monitoring Well Sampling Data
Appendix D	MW-22R and MW-25 Groundwater Concentration Trend Analysis
Appendix E	Laboratory Report – Severn Trent Services, STL Edison

Section 1

Introduction

RMT, Inc. (RMT), on behalf of our client, has prepared this Quarterly Monitoring Report for the L.E. Carpenter and Company (LEC) site ("the site" or "the subject site") located at 170 North Main Street, Wharton, New Jersey (Figure 1). Quarterly monitoring events are performed at the site to comply with paragraph 35 of the 1986 Administrative Consent Order (ACO) issued to LEC by the New Jersey Department of Environmental Protection (NJDEP). We provide a summary of activities completed during the second quarter of 2001, including routine quarterly groundwater monitoring and monthly free product recovery activities. In addition, this report includes summaries of additional site activities performed during second quarter of 2001, and activities scheduled for commencement during third quarter of 2001. We have certified this report in accordance with requirements outlined in N.J.A.C 7:26E-1.5 (Appendix A).

RMT conducted the following tasks during the second quarter of 2001:

- Monthly mobile free product recovery using enhanced fluid recovery (EFR) techniques in accordance with the NJDEP approval letter dated August 20, 1997 (Ref. Section 2).
- Quarterly groundwater monitoring as required under the ACO (Ref. Sections 3 and 4).
- Submitted the document entitled Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001) for agency review and approval (Ref. Section 5).
- Submitted the document entitled Enhancement of Free Product Recovery (RMT, May 24, 2001) for agency review and approval (Ref Section 5).
- Submitted the document entitled Revised Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil (RMT, May 2001) for agency review and approval (Ref. Section 5).

We provide a discussion of these activities in the referenced sections.

Section 2

Monthly EFR Activities

2.1 Introduction

In August 1997, the NJDEP approved the Remedial Action Plan (RAP) which described free product removal using enhanced fluid recovery (EFR) for the eastern portion of the subject site (east of the railroad right-of-way). EFR is conducted by applying a vacuum to product recovery wells to primarily remove free phase product, in addition to limited volumes of contaminated groundwater and contaminant vapors within vadose zone and capillary fringe soils. As the result of increased aeration, this procedure enhances any natural biodegradation that may be occurring in the soil and groundwater. The locations of the twenty-eight (28) EFR wells purged during each monthly EFR event and all groundwater monitoring wells are shown in Figure 2.

RMT arranged performance of three monthly EFR events during the second quarter of 2001 on April 23, May 25 and June 13, 2001. RMT coordinated measurement of the free product thickness in each recovery well (where applicable), followed by EFR. RMT's subcontractor, CEMCO, used the recorded free product measurements to determine the placement of the drop pipe that maximized free product recovery volumes. Table 1 lists apparent free product thickness measurements recorded during second quarter 2001. Severn Trent Services (groundwater monitoring subcontractor and certified laboratory) observed a measurable thickness of free product in 9 of the 72 locations monitored on April 2, 2001. Table 1 also provides a cumulative breakdown of EFR specific information such as minimum and maximum free product thickness levels (in feet), associated waste management costs, and extracted product (liquid and vapor phase) and groundwater volumes (in gallons) to date.

During second quarter 2001, EFR activities were conducted utilizing a Nortech, Inc. 55B vacuum head apparatus capable of producing a vacuum of 17-inches of mercury (in Hg) at 100 cubic feet per minute (cfm). This unit is connected to a fitted 55-gallon drum, and braced to a mobile 4-wheel drive vehicle. When compared to the previously utilized vacuum trucks, use of this system has enabled CEMCO to get closer to each individual EFR well head, minimizing potential losses in the system previously experienced due to the use of greater lengths of extraction hose, while maximizing the maneuverability of the drop pipe. Use of this system has also resulted in a more efficient EFR event, minimizing the volume of groundwater extracted. The average ratio of extracted groundwater to free product during the second quarter of 2001 was approximately 0.053 gallons/gallon. Before use of this method (November 1997 to December 1999), the ratio of extracted groundwater to free product was 4.7 gallons/gallon.

Once the extraction apparatus is full (approximately 55-gallons), the free product and limited volume of groundwater are transferred to the on-site 550-gallon aboveground storage tank (AST) equipped with secondary containment for satellite storage. The fluids generated during EFR events, including purged groundwater generated during groundwater monitoring activities, are transported off-site by Clean Venture, Inc. (US EPA ID No. NJ0000027193) and managed by Cycle Chem, Inc. (USEPA ID No. NJD002200046) at their facility located in Elizabeth, New Jersey. During 2nd quarter 2001, 306 gallons of waste fluids were transported off-site (April 23, 2001). The 306 gallons accounted for extracted volumes accumulated on-site from EFR events conducted in December 2000, and March and April 2001. The total fluid disposal volume consisted of approximately 149 gallons of free product, 9 gallons of groundwater resulting from free product extraction, and 148 gallons of groundwater purged during monitoring events.

2.2 Apparent Free Product Trends

The following sections describe apparent product trends in the western, western-central, eastern-central, and eastern portions of the historic free product area. Apparent product refers to a volume (in gallons) of free product occupying the casings of each EFR well. Total apparent free product represents the sum of product volumes from each EFR well within each of the four segregated regions.

The apparent product thickness is not representative of the actual free product thickness or volume that exists within the formation. RMT previously evaluated actual free product thickness and volume in our report entitled Free Product Volume Analysis (May 2000). To facilitate description of the current distribution of free product, the zone of free product occurrence has been divided into four sub areas. These four areas from west to east are:

2.2.1 Western Region of Free Product

In the western portion of the free product area (EFR wells 1, 2, 3, 17, 18, 20, 21, and 28), there was a significant decrease in the total volume of apparent free product measured during the second quarter of 2001. Apparent total free product volume decreased from 11.04 gallons in March 2001 to 8.51 gallons in April, 6.2 gallons in May and 6.47 gallons in June 2001. However; the March total free product volume was relatively high as a result of the extended time for free product infiltration from product "up cones" in the vicinity of EFR wells that developed as a function of previous monthly EFR events. Extended infiltration times were available because no EFR events took place in January or February. Free product thickness in most wells decreased during the second quarter, while thickness values at EFR wells 2 and 28 remained consistent with first quarter

results. Therefore, apparent free product volume in the western region appears to be generally decreasing (see Appendix B).

2.2.2 Western-Central Region of Free Product

In the western-central portion of the free product area (EFR wells 4, 5, 6, 7, 19, 22, 23, 24, 25, 26, and 27), the total volume of apparent free product decreased from 11.38 gallons in March 2001 to 2.69 gallons in June 2001. Again, this significant decrease in free product volume is attributed to the extended recharge time each well experienced during this quarter as no EFR events took place in January or February. During second quarter, free product thickness values were consistent with historical results prior to first quarter 2001. In general, apparent free product volume in the western-central region appears to be decreasing (see Appendix B).

2.2.3 Eastern-Central Region of Free Product

The total volume of apparent free product decreased slightly in the eastern-central portion of the free product area (EFR wells 8, 9, 10, 11, 12, and 13) during second quarter 2001. Apparent free product volume decreased from 6.68 gallons in March 2001 to 4.09 gallons in June 2001. In general, the apparent free product volume in the eastern-central region appears to be decreasing (see Appendix B).

2.2.4 Eastern Region of Free Product

During second quarter 2001, free product was only detected in April (0.01 gallons) in the eastern portion of the free product area (EFR wells 14, 15, and 16).

2.2.5 Site Total Apparent Free Product Area

The total apparent free product volume on the site, accounting for all 28 EFR wells, decreased over the course of the second quarter from 29.09 gallons in March 2001 to 13.25 gallons in June 2001. The free product volume in March was high due to extensive product recharge that occurred during January and February 2001 when EFR could not be conducted. With the exception of first quarter 2001, the total apparent free product trend chart indicates a steady decrease in the volume of apparent free product existing on-site throughout the use of the monthly EFR (21.60 gallons in November 1997 to 13.25 gallons in June 2001). A cumulative breakdown of free product thickness and apparent free product volumes specific to each region is presented in Table 2. Additionally, trend charts for each of the four free product regions, and for the site as a whole, that

graphically display apparent free product volume fluctuations over time are presented in Appendix B. Figure 3 shows iso-thickness contours and the lateral extent of apparent free product on-site during 2nd quarter 2001. This figure incorporates the apparent free product thickness measurements from the groundwater monitoring event conducted by Severn Trent Services on April 2, 2001, and the pre EFR event measurements obtained by CEMCO on April 23, 2001.

2.3 Recovered Free Product Volume Estimations

After the completion of each EFR event, the total volume of extracted fluid was determined by gauging the 55-gallon vacuum head drum previously mentioned in section 2.1 with an oil/water interface probe. The drum was allowed to stabilize for one hour prior to gauging to allow for separation of emulsified product resulting from aggressive recovery. Gauging was conducted on a level surface and recorded thicknesses were converted to volumes based on a conversion of 1.65 gallons per inch of fluid thickness in the 55-gallon drum. Recovered liquid free product volume was determined by subtracting the volume of water from the total fluid volume collected in the 55-gallon drum. Vapor phase product volume was estimated based on vacuum head airflow (in cfm) and vented contaminant concentrations (in ppm) obtained during extraction at each EFR well. The volume (combined liquid and vapor phase) of free product extracted during each month's EFR event is presented in Table 3.

The total extraction volume (measurable free product, product vapor, and groundwater) during second quarter 2001 was 147.28 gallons. Approximately 140.69 gallons were measurable free phase product as determined by vacuum head drum gauging and vapor phase volume calculations, and 6.6 gallons were groundwater. Since initiation in December 1997, site EFR activities have removed approximately 14,185 gallons of total fluids, of which, approximately 3,082 gallons were measurable free phase product. Reference Table 1 for a complete breakdown of EFR related information.

Section 3

Quarterly Groundwater Monitoring

Groundwater monitoring activities were conducted on April 2nd, 2001, in accordance with the procedures contained in the NJDEP's *Field Sampling Procedures Manual* dated May 1992. Monitoring wells MW-4, MW-11D(R), MW-14I, MW-15S, MW-15I, MW-17S, MW-21, MW-22(R), and MW-25(R) were purged utilizing a peristaltic pump to remove at least three well volumes prior to sampling. During the well purge process, indicator parameters were monitored and recorded so that a representative sample of the formation water was collected for analysis. Monitoring well sample data for 2nd quarter 2001 is presented as Appendix C. Once the wells were purged, samples were collected using Teflon coated plastic bailers. Monitoring wells were sampled and analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and bis (2-ethylhexyl) phthalate (DEHP) per the current groundwater monitoring protocol presented as Table 4. Locations of the quarterly monitoring wells are shown on Figure 2.

A sample duplicate, a field blank and a trip blank were collected to satisfy quality control requirements. The trip blank was prepared by the laboratory and remained with the sample containers until the samples were returned to the laboratory. The duplicate was collected from monitoring well MW-14I (duplicate sample No. MW-14Id) and analyzed for BTEX. The field blank was collected by pouring distilled water through a Teflon coated bailer to verify that the field equipment was not adversely impacting the samples and decontamination procedures were adequate. Any sampling equipment used at each well was decontaminated prior to each use utilizing a soap and water wash and distilled water rinse. DEHP was detected at 2 µg/L in the field blank, indicating a potential for laboratory contamination.

The results of the chemical analyses were compared to New Jersey Class IIa Groundwater Quality Standards (NJGWQS). The presence of BTEX and DEHP was not detected at concentrations above NJGWQS in samples collected from MW-11(DR), MW-14I and duplicate MW-14Id, MW-15S, MW-15I, MW-17S, MW-21, and MW-25(R). At MW-22(R), ethylbenzene, total xylenes and DEHP were detected at concentrations of 910 µg/L, 4,100 µg/L, and 2,400 µg/L respectively. All three of the contaminant concentrations detected at MW-22(R) exceed each of the corresponding NJGWQS.

Even though contaminant concentrations at MW-22(R) have consistently exceeded NJGWQS, contaminant concentrations at downgradient monitoring location MW-25(R) have not exceeded NJGWQS since 2nd quarter 1997, and contaminant concentration further downgradient at MW-

21 have never exceeded NJGWQS since sampling began at this location in 1st quarter 1999. We will continue to closely monitor the contaminant concentration-trend at all three locations. Concentration trends for contaminants of concern detected at MW-22(R) and MW-25(R) are presented as Appendix D.

Agency comments outlined in the NJDEP letter dated April 5, 2001 regarding their review of the 4th Quarter 2000 Monitoring Report (RMT, February 2001) requested that MW-11D(R) remain incorporated in the quarterly monitoring protocol; however groundwater collected from this location will continue to be analyzed for DEHP only. RMT has summarized the historical groundwater monitoring data, including the results from the second quarter 2001 sampling event, on Table 5. We have included the corresponding analytical laboratory reports in Appendix E. Severn Trent Services of Edison, New Jersey (STL-Edison) performed all site sampling activities and laboratory analyses.

Section 4

Water Table Elevations

On April 2, 2001, STL-Edison measured static groundwater levels from 72 different locations throughout the site (not including the EFR wells). RMT used these data to calculate groundwater elevations and evaluate the groundwater flow pattern in the shallow aquifer system (see Table 6).

Figure 4 displays the site-wide shallow groundwater equipotential surface, and indicates that groundwater flow direction in the shallow aquifer east of the rail spur is similar to that observed historically (generally toward the east). Also exhibited in Figure 4 are the effects caused by the presence of the drainage ditch. The drainage ditch acts as a local groundwater "sink", and shallow groundwater from a large portion of the site seeps into the drainage ditch. Shallow groundwater from the southern edge of the property flows eastwards, parallel to the Rockaway River and off-site towards the Wharton Enterprises property.

Figure 5 displays the elevations of the water-table surface in the MW19/Hot Spot 1 area (northwest corner of the subject site). We include each specific measured groundwater elevation and show it next to each of the wells. The data show that groundwater flow direction in the shallow aquifer underlying this area is generally towards the east-northeast and is probably driven by recharge from Washington Forge Pond. Elevations measured in wells MW19-8, MW19-7, MW19-6, and MW19-2 control the bending of the contours where they are roughly perpendicular to the regional interceptor sewer that is located under Ross Street. This supports data that show the regional sewer line intercepts and locally controls shallow groundwater flow. The pattern of groundwater flow in this area has remained the same throughout 2000 and 2001, including during periods of seasonal groundwater elevation fluctuations.

Section 5

Site Investigation and Remedial Actions

The following section briefly outlines additional activities and scopes of work performed at various on-site areas of environmental concern during 2nd quarter 2001, and summarizes future activities associated with each area.

5.1 MW19/Hot Spot 1 Area

Approval to install the monitoring wells as outlined in both the workplan and the workplan addendum letter dated October 26, 2000 and February 13, 2001 respectively was provided in the NJDEP letter dated March 13, 2001. Village of Wharton Road Opening Permit No. OP 01-05 dated June 11, 2001 provided local authorization to install the monitoring wells. Installation activities commenced on June 18, 2001 with NJDEP oversight. However, because of the close proximity of overhead power lines on the north side of Ross Street RMT had to postpone installation activities. Conversations with the NJDEP on June 20, 2001 indicated that installation of the two shallow monitoring wells (MW19-9 and MW19-10) was no longer necessary, however; installation of the deep monitoring well MW19-9D was still required. We summarized this conversation in RMT's letter to the NJDEP dated June 27, 2001.

RMT discussed the installation of deep monitoring well MW19-9D with the USEPA on July 2, 2001. The USEPA verbally approved installation of this well approximately 15-feet north of existing monitoring well MW19-6, south of the Ross Street 24-inch regional interceptor sewer. We summarized the verbal approval conversation in RMT's July 3, 2001 letter to both USEPA and NJDEP. The NJDEP provided oversight during monitoring well MW19-9D installation activities on July 10, 2001. The installation, development, and sampling of MW19-D will be documented under separate cover during 3rd quarter 2001.

5.2 Free Product Layer

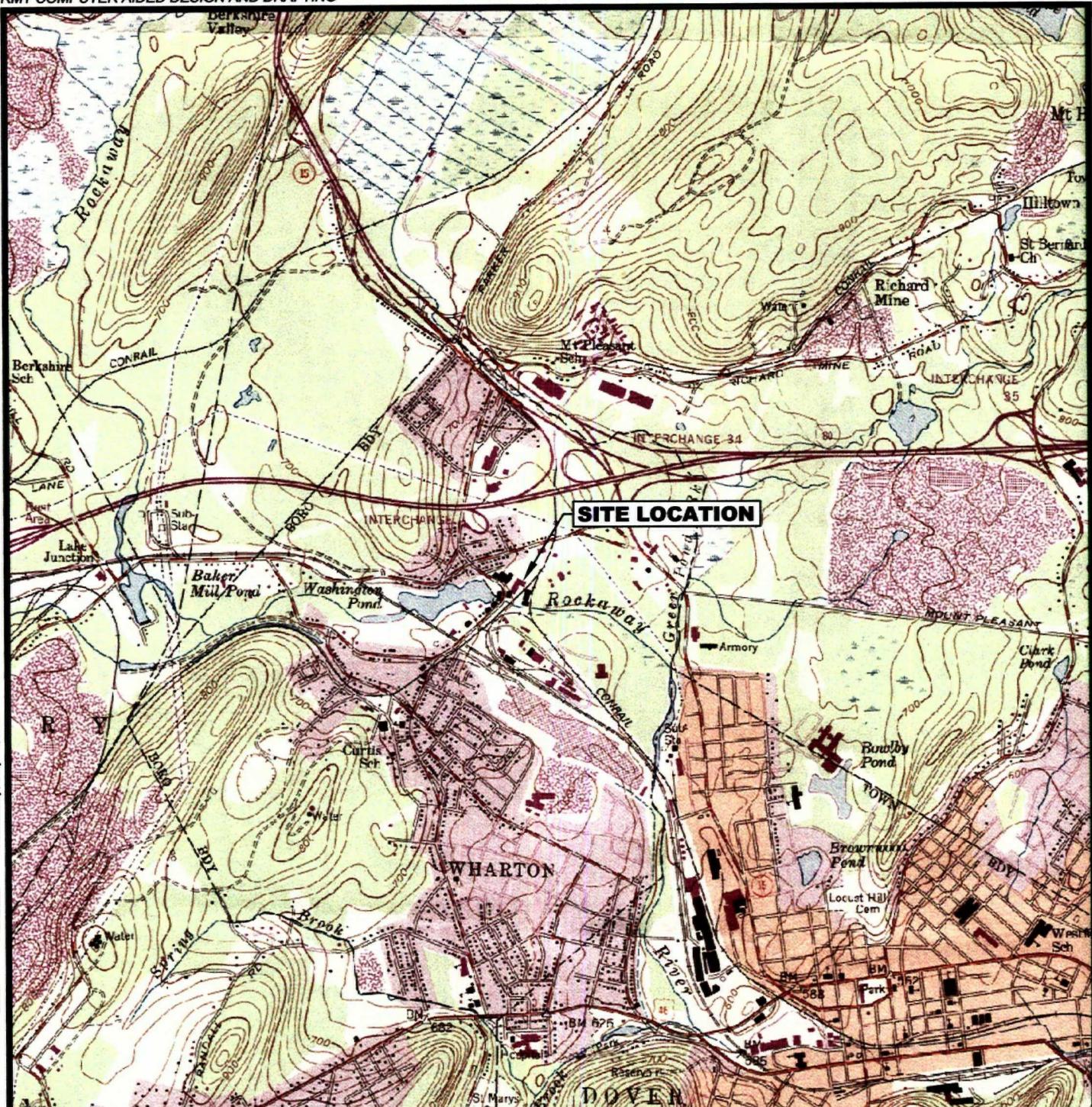
Final agency comments dated October 13, 2000 regarding the Workplan to Evaluate Additional Technologies to Enhance On-Site Free Product Recovery (RMT, Inc., August 15, 2000) have been received. RMT, on behalf of LEC, submitted the document entitled Enhancement of Free Product Recovery (RMT, May 24, 2001) that proposed the concept of a recovery trench for installation in the free product area to expedite recovery. We have not yet received Agency approval for this recovery mechanism.

5.3 Hot Spot B & C

Final EPA comments dated December 21, 2000 regarding the Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil (RMT, Inc., September 6, 2000) have been received. RMT, on behalf of LEC, submitted the document entitled Revised Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil (RMT, May 2001) to address the December 2000 agency comments. We have not yet received Agency approval of this revised workplan.

5.4 Monitored Natural Attenuation (MNA)

RMT, on behalf of LEC, continued the evaluation of MNA as a viable remedial alternative to *ex situ* bioremediation and re-infiltration (1994 Record of Decision Alternative No. 4). RMT submitted a report entitled Evaluation of Remediation of Groundwater by Natural Attenuation (May 2000) concluding that natural biodegradation of contaminants of concern (COCs) is occurring. As a result of the discussions during the August 4, 2000 conference call between LEC, RMT and the agencies, and the results of the above-mentioned report, RMT proposed the continued evaluation of MNA as a viable remedial alternative in the document entitled Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001). Agency approval of this workplan has not been received to date.

08:46:2745 AM
No xrefs Attached.Plot Time:
Attached Xrefs:86103 Bytes
Wednesday, July 11, 2001Dwg Size:
Plot Date:
1"=2000'Operator Name:
Scale:
1"=2000'SOURCE
1. BASE MAP DEVELOPED FROM THE DOVER, NEW JERSEY 7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP, DATED 1954, PHOTOREVISED 1981.PLT DATA
Drawing Name:
J:03868123138682350.dwg

NEW JERSEY

0 2000' 4000'
APPROXIMATE SCALE IN FEET

QUADRANGLE LOCATION

SOURCE

- BASE MAP DEVELOPED FROM THE DOVER, NEW JERSEY 7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP, DATED 1954, PHOTOREVISED 1981.

DRAWN BY: SJL

APPROVED BY: JDD

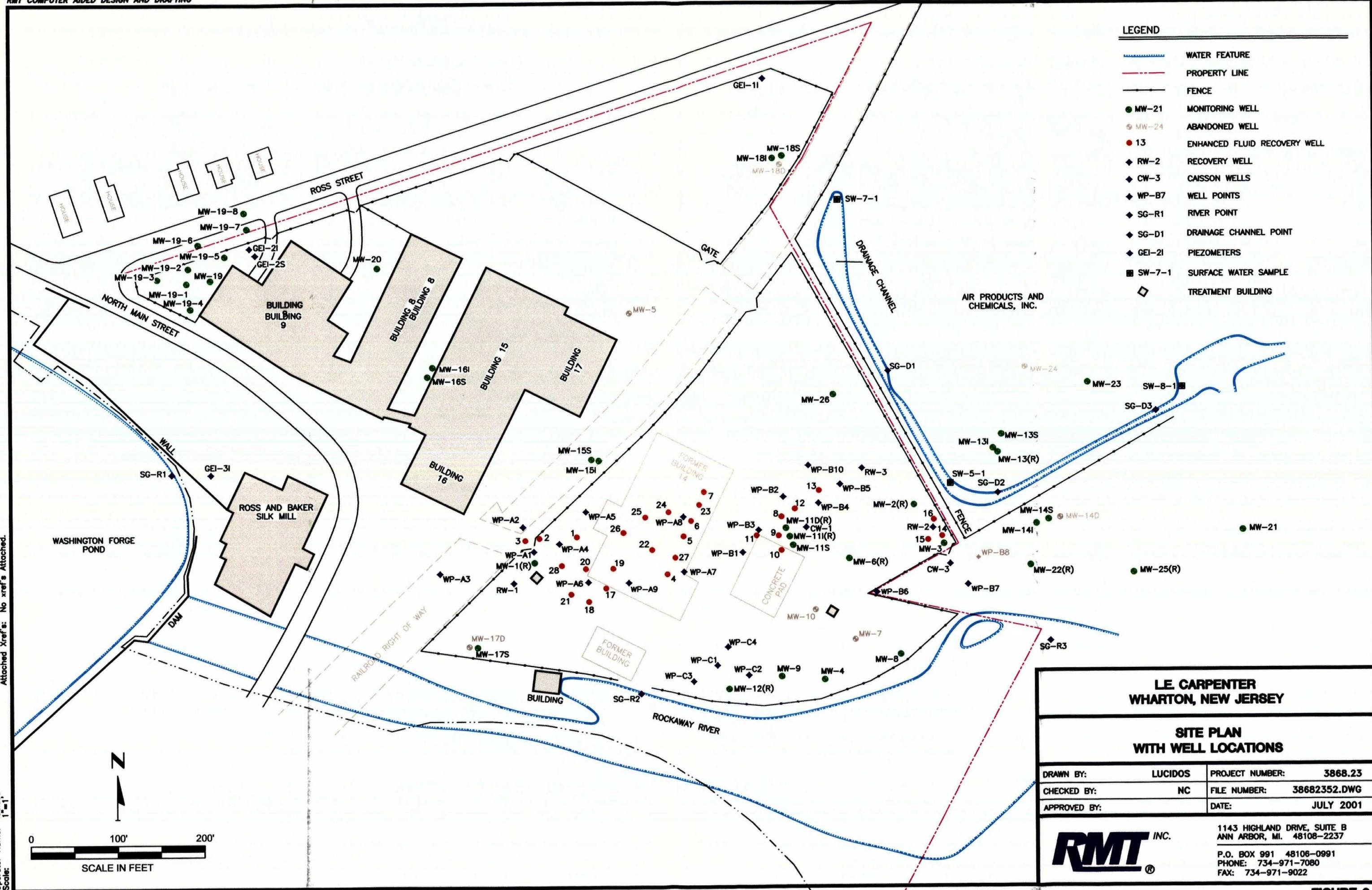
PROJECT NUMBER: 3868.23

FILE NUMBER: 38682350.DWG

DATE: JULY 2001

RMT INC.

**LE CARPENTER
WHARTON, NEW JERSEY**
SITE LOCATION MAP
FIGURE 1



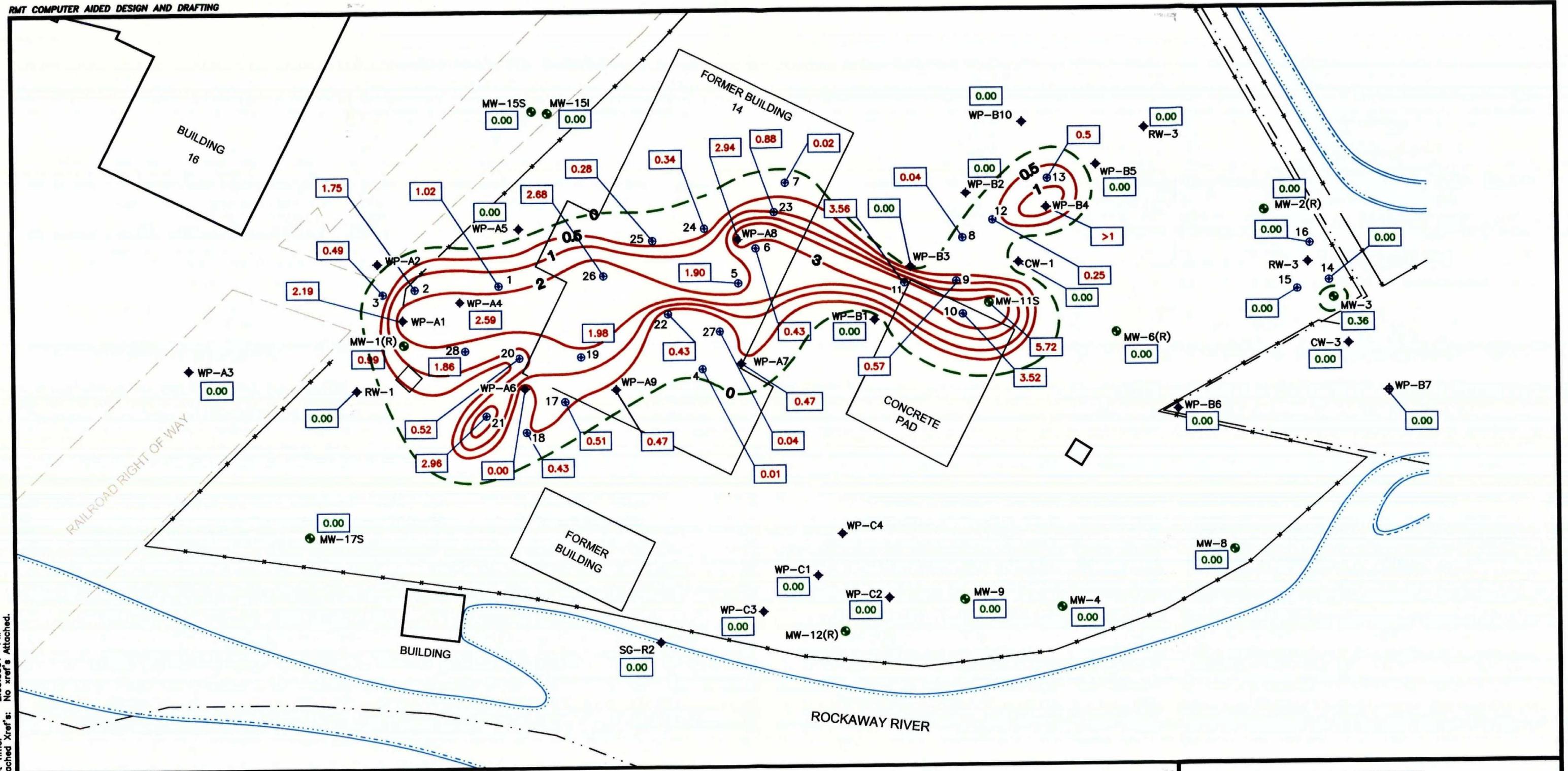
Dwg Name: J:\03868\23\38682353.dwg
 Plot Name: lucidos
 Operator Name: 1-50'
 Scale:

Size: Bytes
 Date: Wednesday, July 11, 2001
 Plot Time: 2:03:55:01 PM
 Attached Xref's:

LEGEND

- SURFACE WATER FEATURE**
- PROPERTY LINE**
- FENCE**
- APPARENT PRODUCT THICKNESS CONTOURS**
(Feet measured in well)
- APPROXIMATE OUTER LIMIT OF FREE PRODUCT**
- TREATMENT BUILDING**
- ENHANCED FLUID RECOVERY WELL (EFR)**

- MONITORING WELL** MW-13S ●
- ABANDONED WELL** MW-24 ◊
- RECOVERY WELL** RW-2 ♦
- CAISSON WELLS** CW-3 ♦
- WELL POINTS WITH ELEVATION** WP-B7 ♦
- NO MEASURABLE PRODUCT** 0.00
- PRODUCT THICKNESS MEASURED IN WELL (FT)**
(Measurements collected at monitoring wells and well points
on April 2, 2001 by STL Edison)
(Measurements collected at EFR wells on April 2, 2001 by CEMCO)
- 1.22**

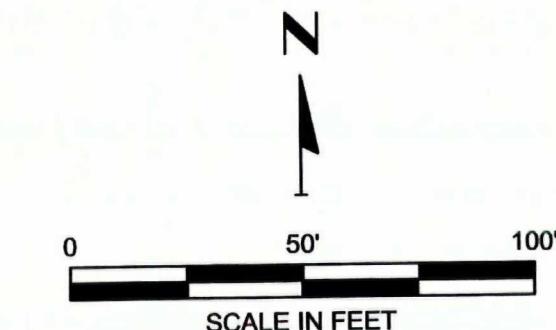


LE CARPENTER
WHARTON, NEW JERSEY

EXTENT AND APPARENT THICKNESS OF FREE PRODUCT FOR 2nd QUARTER 2001

DRAWN BY:	LUCIDOS	PROJECT NUMBER:	3868.23
CHECKED BY:	DD	FILE NUMBER:	38682353.DWG
APPROVED BY:	DD	DATE:	JULY 2001

1143 HIGHLAND DRIVE, SUITE B
ANN ARBOR, MI. 48108-2237
RMT INC.
 P.O. BOX 991 48106-0991
 PHONE: 734-971-7080
 FAX: 734-971-9022

**FIGURE 3**

NOTES

1. WATER LEVELS WERE MEASURED ON 2-27-01.

LEGEND

- WATER FEATURE
- PROPERTY LINE
- EQUIPOTENTIAL LINE
- FENCE
- MW-21 (626.24)
- MW-24
- 13
- RW-2
- CW-3
- WP-B7 (625.90)
- SG-R1
- SG-D1
- GEI-21
- TREATMENT BUILDING

SEE FIGURE 5 FOR DETAILS

Dwg Name: 279055 Byles
 Plot Date: Thursday April 19, 2001
 Plot Time: 07:05:57 70 AM
 Attached Xref's:

PLOT DATA
 Drawing Name: J:\03868\23\38682302.dwg
 Operator Name: lucido
 Scale: 1:100

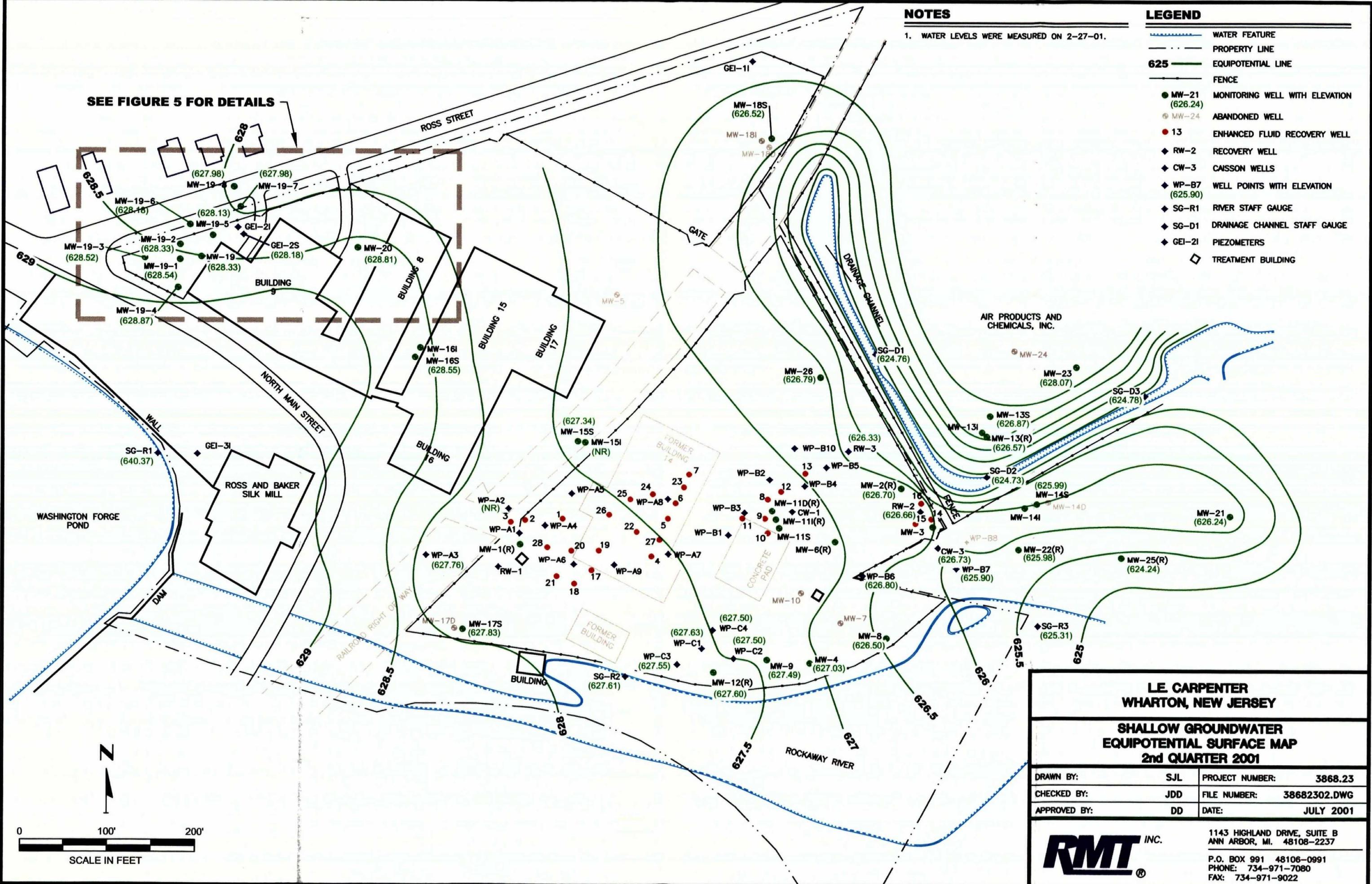
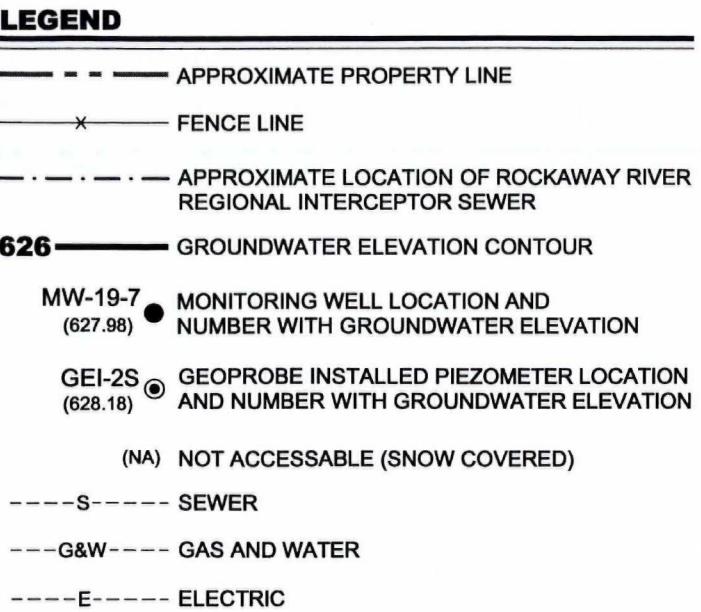
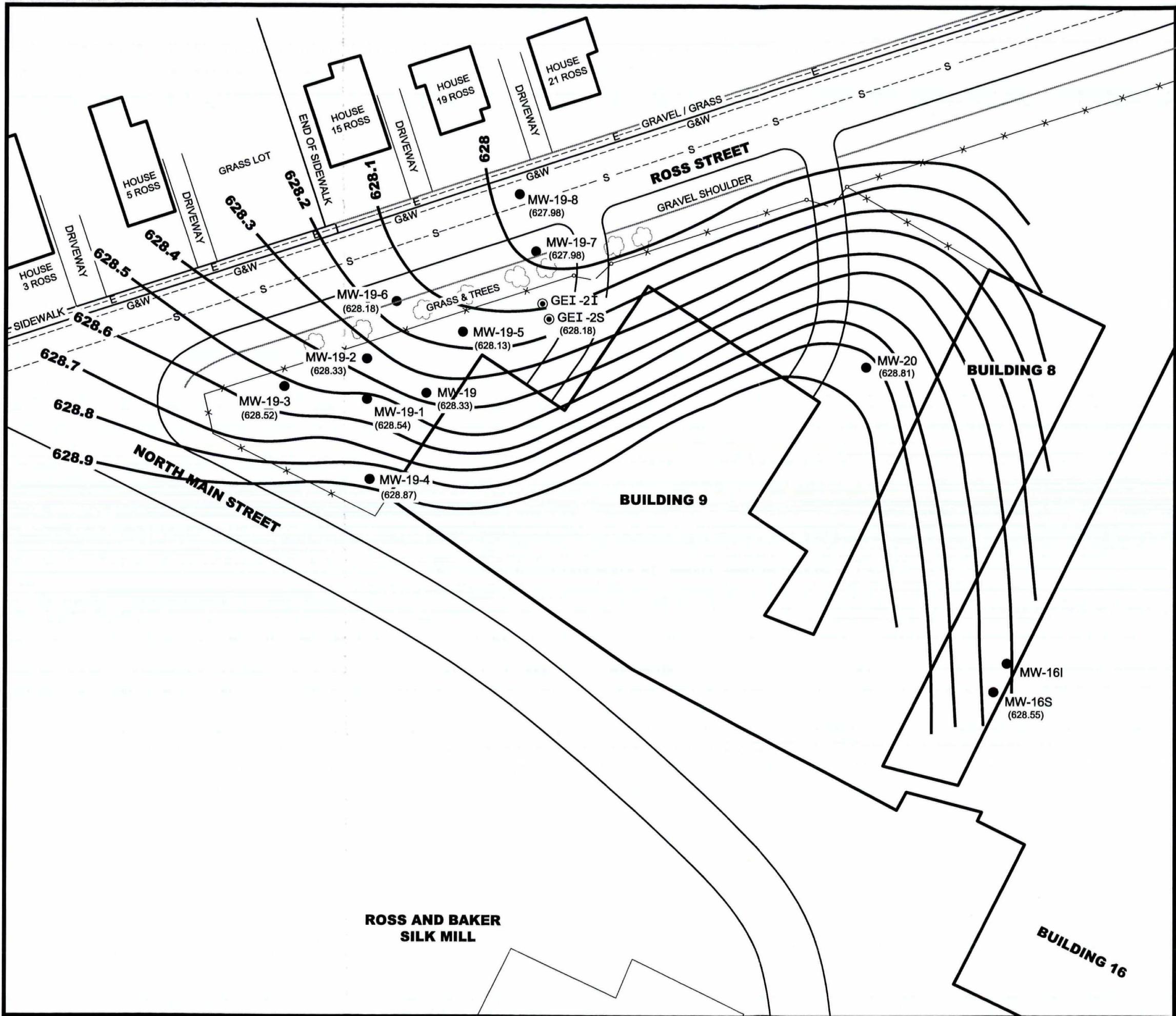


FIGURE 4

**NOTES**

1. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON APRIL 2, 2001.



0 40' 80'
SCALE IN FEET

LE CARPENTER
WHARTON, NEW JERSEY

MW-19 HOT SPOT 1 GROUNDWATER ELEVATION CONTOURS FOR APRIL 2001

DRAWN BY:	SJL	PROJECT NUMBER:	3868.23
CHECKED BY:	JDD	FILE NUMBER:	38682355.DWG
APPROVED BY:	JDD	DATE:	JULY 2001

RMT INC.
P.O. BOX 991 48106-0991
PHONE: 734-971-7080
FAX: 734-971-9022

FIGURE 5

Table 1
L.E. CARPENTER - Wharton, New Jersey
Free Product Recovery - EFR Well # 1 - 28

EFR Event Date	Development	EFR #1	EFR #2	EFR #3	EFR #4	EFR #5	EFR #6	EFR #7	EFR #8	EFR #9	EFR #10	EFR #11 ⁽¹⁾	EFR #12	EFR #13	EFR #14	EFR #15	
Well No.	November 21, 1997 Feet of Product	December 9, 1997 Feet of Product	January 7, 1998 Feet of Product	January 22, 1998 Feet of Product	February 17, 1998 Feet of Product	March 13, 1998 Feet of Product	March 27, 1998 Feet of Product	April 24, 1998 Feet of Product	May 29, 1998 Feet of Product	June 30, 1998 Feet of Product	July 31, 1998 Feet of Product	August 24, 1998 Feet of Product	September 17, 1998 Feet of Product	October 22, 1998 Feet of Product	November 20, 1998 Feet of Product	December 18, 1998 Feet of Product	
EFR-1	1.64	1.53	1.94	0.36	2.48	0.93	0.94	1.42	1.55	2.11	1.28	1.22	1.71	1.59	1.71	1.57	
EFR-2	1.55	1.50	1.86	0.06	2.20	2.96	2.92	2.65	2.44	1.78	1.12	1.09	1.21	1.29	1.51	1.41	
EFR-3	0.85	1.02	1.27	—	1.58	1.19	0.03	0.24	0.19	0.77	0.72	0.93	1.03	1.01	1.19	1.18	
EFR-4	1.03	2.27	0.54	0.07	0.30	—	—	—	—	0.03	0.38	1.23	2.40	2.17	1.75	1.79	
EFR-5	4.03	3.74	4.25	0.32	3.29	3.39	1.71	2.71	2.02	1.86	2.38	2.52	2.33	2.52	2.19	2.28	
EFR-6	0.72	1.00	1.24	—	2.27	1.71	1.17	2.23	1.55	1.56	1.96	1.56	1.42	1.25	1.29	1.38	
EFR-7	0.17	0.09	0.16	—	—	—	—	—	—	0.02	0.02	0.03	0.07	0.05	0.20	0.16	
EFR-8	0.00	0.00	0.00	—	0.08	—	—	—	—	0.03	0.04	0.08	0.13	0.09	0.07	0.03	
EFR-9	0.00	1.10	1.79	1.15	0.16	3.08	0.08	0.07	0.11	0.29	0.61	0.98	1.23	1.31	1.26	1.86	
EFR-10	5.20	5.80	6.42	2.34	7.47	7.06	6.05	6.71	5.47	5.68	4.94	4.52	4.34	4.38	3.98	3.99	
EFR-11	3.07	4.04	4.28	5.64	4.47	4.32	4.67	5.91	5.73	6.08	4.73	4.47	3.95	4.06	3.65	3.52	
EFR-12	0.04	0.03	0.00	—	0.07	—	—	—	0.02	0.28	0.22	0.28	0.24	0.15	0.29	0.17	
EFR-13	0.48	0.56	1.33	0.05	1.28	1.07	1.07	0.67	—	0.90	0.56	0.48	0.66	0.82	1.13	1.30	
EFR-14	0.10	0.16	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	
EFR-15	0.09	0.12	0.27	—	0.06	—	—	—	—	—	—	—	—	—	—	—	
EFR-16	0.00	0.00	0.00	—	—	—	—	—	—	0.03	0.02	0.03	0.03	0.12	0.12	0.32	
EFR-17	0.04	0.17	1.56	0.39	0.17	0.08	—	0.09	—	0.02	—	—	—	0.00	0.00	0.00	
EFR-18	0.10	0.10	0.09	—	—	—	—	—	—	0.01	0.08	0.14	0.48	0.68	0.98	1.08	
EFR-19	0.54	2.80	1.89	0.49	1.95	1.63	1.44	0.88	0.65	0.42	0.90	1.26	1.68	1.95	2.31	2.41	
EFR-20	0.40	0.34	0.95	0.47	0.27	—	—	0.04	0.24	0.37	0.65	0.63	0.79	1.24	1.85	2.11	
EFR-21	2.36	2.40	2.71	2.74	2.74	4.14	3.97	4.23	3.98	3.29	1.97	1.87	1.86	1.77	1.67	1.62	
EFR-22	3.78	4.10	0.05	4.81	3.40	4.69	3.42	1.82	1.22	0.96	2.86	2.87	2.97	2.83	2.58	2.27	
EFR-23	0.00	0.06	0.06	—	0.02	—	—	—	—	—	0.05	0.11	0.08	0.27	1.03	3.07	
EFR-24	0.00	0.00	0.00	—	—	—	—	—	—	—	—	—	—	0.00	0.03	0.12	
EFR-25	2.95	3.00	3.55	0.26	4.15	3.11	0.72	0.82	0.79	0.78	0.60	0.41	0.29	0.41	1.33	1.58	
EFR-26	2.20	2.05	2.66	0.29	2.30	2.12	1.43	1.32	1.95	1.21	2.06	1.58	1.17	1.24	1.08	1.09	
EFR-27	0.15	0.02	2.71	0.02	0.74	—	—	0.03	—	0.02	0.33	0.45	1.49	0.54	0.47	0.51	
MIN (ft)	0.00	0.00	0.00	0.02	0.02	0.08	0.03	0.03	0.02	0.01	2.61	1.47	1.73	1.69	1.83	1.79	1.74
MAX (ft)	5.20	5.80	6.42	5.64	7.47	7.06	6.05	6.71	5.73	6.08	4.94	4.52	4.34	4.38	3.98	3.99	
Average (ft)	1.20	1.44	1.55	1.17	1.92	2.79	2.21	2.01	1.91	1.25	1.22	1.23	1.36	1.34	1.47	1.46	
Total Free Product (ft)	33.69	40.30	43.36	19.94	44.05	44.68	33.10	36.24	31.07	31.16	30.38	30.73	33.90	34.92	38.30	38.36	
Total Standing Free Product Volume (gal)	21.60	25.83	27.79	12.78	28.24	28.64	21.22	23.23	19.92	19.97	19.47	19.70	22.04	22.70	24.90	24.93	
Estimated Total Free Product Removed (gal) ⁽¹⁾ (Liquid and Vapor Phase Free Product Volume)	315.00	250.00	210.00	80.00	120.00	130.00	100.00	110.00	95.00	105.00	76.00	55.00	60.00	15.00	25.00	51.00	
Estimated Total Fluids Removed (gal) (Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000																	
Vapor Phase Free Product Extraction Volume (gal) as of Jan 2000																	
Liquid Phase Free Product Extraction Volume (gal) as of Jan 2000																	
Groundwater Extraction Volume (gal) per each EFR Event ⁽¹⁾ as of Jan 2000																	
Total EFR Extraction Volume (gal) (Total Volume: free product + groundwater + product vapor)	2350.00	1410.00	376.00	256.00	314.00	300.00	339.00	403.00	390.00	561.00	211.00	220.00	329.00	212.00	120.00	256.00	
Estimated Volume Removed Resulting from Drum Purging (GW purge water) if applicable ⁽¹⁾						338	150	600	70	110	71	—	110	—	—	110	
Total Volume Removed from Site (gal) (Manifested volume) ⁽¹⁾	2,350	1,410	376	256	314	638	489	1,003	460	671	282	220	439	212	120	256	
Cumulative Total Free Product Removed (gal)	315	565	775	855	975	1,105	1,205	1,315	1,410	1,515	1,591	1,646	1,706	1,721	1,746	1,797	
Extraction, Transportation & Disposal Cost ⁽²⁾	\$ 3,976.37	\$ 2,742.62	\$ 1,130.50	\$ 1,130.50	\$ 1,219.12	\$ 1,431.87	\$ 1,541.31	\$ 2,036.43	\$ 1,240.75	\$ 1,347.68	\$ 1,324.62	\$ 1,838.93	\$ 1,383.18	\$ 915.25	\$ 915.00	\$ 973.00	
Unit Cost per gal ⁽³⁾	\$ 1.69	\$ 1.95	\$ 3.01	\$ 4.42	\$ 3.88	\$ 2.24	\$ 3.15	\$ 2.03	\$ 2.70	\$ 2.01	\$						

Table 1
L.E. CARPENTER - Wharton, New Jersey
Free Product Recovery - EFR Well # 1 - 28

EFR Event Date	EFR #16 January 13, 1999 Feet of Product	EFR #17 February 18, 1999 Feet of Product	EFR #18 March 24, 1999 Feet of Product	EFR #19 April 19, 1999 Feet of Product	EFR #20 May 18, 1999 Feet of Product	EFR #21 June 22, 1999 Feet of Product	EFR #22 July 28, 1999 Feet of Product	EFR #23 ⁽¹⁾ August 27, 1999 Feet of Product	EFR #24 September 22, 1999 Feet of Product	EFR #25 October 27, 1999 Feet of Product	EFR #26 November 30, 1999 Feet of Product	EFR #27 December 16, 1999 Feet of Product	EFR #28 January 28, 2000 Feet of Product	EFR #29 February 18, 2000 Feet of Product	EFR #30 March 24, 2000 Feet of Product	EFR #31 April 19, 2000 Feet of Product
Well No.																
EFR-1	0.53	1.79	3.68	1.13	1.09	1.15	1.49	1.27	1.94	1.63	1.47	1.20	1.22	0.85	1.86	1.59
EFR-2	0.95	1.40	2.42	1.46	1.22	0.92	1.21	1.00	0.63	1.35	1.28	1.40	0.06	1.04	2.25	2.00
EFR-3	1.14	1.01	1.63	0.36	0.25	0.86	0.88	1.03	0.74	0.69	0.47	0.02	0.51	0.07	0.08	0.09
EFR-4	0.73	0.10	0.14	0.08	0.05	0.03	0.44	0.99	0.51	0.11	0.03	0.58	0.51	0.48	0.11	0.11
EFR-5	2.68	3.47	6.15	2.65	2.61	2.66	2.66	1.57	1.77	3.23	2.99	1.27	2.95	2.46	2.91	2.54
EFR-6	0.49	0.84	0.88	0.61	1.07	1.16	1.51	0.91	0.15	0.86	0.63	0.33	1.07	0.77	0.29	0.31
EFR-7	0.02	0.04	0.04	0.07	0.02	0.08	0.28	0.05	0.01	0.07	0.04	0.47	0.15	0.02	0.35	0.01
EFR-8	0.12	0.00	0.03	0.03	0.03	0.09	0.39	0.27	0.09	0.13	0.05	0.11	0.05	0.06	0.08	0.03
EFR-9	0.74	0.49	0.06	0.11	0.32	0.49	1.16	0.56	0.41	0.28	0.10	0.15	0.13	0.08	0.19	0.02
EFR-10	3.68	5.79	5.52	4.97	4.23	3.71	3.63	2.47	3.02	5.18	3.95	3.07	4.50	3.55	3.50	4.50
EFR-11	2.42	4.69	2.84	2.02	2.48	3.28	2.78	1.57	1.93	3.20	3.11	1.07	3.44	4.95	2.41	2.95
EFR-12	0.04	0.11	0.05	0.02	0.02	0.10	0.30	0.20	0.03	0.09	0.67	0.01	0.03	0.49	0.46	0.10
EFR-13	0.22	1.19	0.15	0.49	0.50	0.44	1.33	1.01	0.74	0.78	0.57	0.26	0.36	0.34	0.48	0.47
EFR-14	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-15	0.11	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04	0.02	0.08	0.02	0.02	0.02	0.02	0.02
EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EFR-17	0.26	0.08	0.06	0.06	0.08	0.12	0.39	0.36	0.10	0.06	0.24	0.25	0.11	0.32	0.04	0.16
EFR-18	0.56	0.11	-	0.06	0.16	0.46	0.96	1.37	0.61	0.36	0.77	0.05	0.20	0.05	0.12	0.04
EFR-19	1.83	1.68	0.52	0.44	0.52	1.10	2.05	2.02	0.51	1.54	0.84	0.69	1.67	1.73	2.25	0.60
EFR-20	0.65	1.33	0.88	0.43	0.89	0.87	1.59	1.86	0.47	1.92	1.36	0.75	1.08	2.58	0.64	0.42
EFR-21	1.21	1.43	2.62	2.35	1.49	1.46	1.57	1.04	1.01	2.32	1.40	1.70	1.92	1.34	3.04	2.86
EFR-22	2.06	0.84	0.34	0.95	1.39	1.93	1.47	1.41	0.17	2.22	1.76	0.53	0.82	0.58	0.09	0.16
EFR-23	1.55	0.91	0.47	0.22	0.25	0.45	2.13	1.03	0.12	0.53	0.64	0.24	0.23	0.31	0.46	0.06
EFR-24	0.38	0.06	0.00	0.00	0.00	0.08	0.08	0.05	0.00	0.00	0.04	0.13	0.11	0.07	0.58	0.02
EFR-25	1.05	1.75	1.19	1.08	0.76	0.54	1.74	1.48	0.21	0.39	0.19	0.05	0.31	0.39	0.58	0.21
EFR-26	0.73	0.55	0.45	0.75	1.29	1.28	1.23	0.72	0.29	0.52	0.94	0.59	1.54	1.10	1.33	1.68
EFR-27	0.09	0.12	0.00	0.00	0.02	0.03	0.17	0.21	0.06	0.01	0.01	0.01	0.02	0.14	0.20	0.01
MIN (ft)	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX (ft)	3.68	5.79	6.15	4.97	4.23	3.71	3.63	2.47	3.02	5.18	3.95	3.07	4.50	4.95	3.50	4.50
Average (ft)	0.97	1.25	1.22	0.79	0.79	0.88	1.18	0.94	0.57	1.06	0.88	0.58	0.87	0.89	0.86	0.84
Total Free Product (ft)	25.27	31.14	31.84	22.00	22.20	24.54	33.11	26.36	15.94	29.68	24.59	16.37	24.34	24.79	24.62	23.38
Total Standing Free Product Volume (gal)	16.43	20.24	20.70	14.30	14.43	15.95	21.52	17.13	10.36	19.29	15.98	10.64	15.82	16.11	16.00	15.20
Estimated Total Free Product Removed (gal) ⁽¹⁾ (Liquid and Vapor Phase Free Product Volume)	23.00	74.00	40.00	59.24	47.20	38.51	54.48	36.00	44.00	54.73	44.79	49.34	43.52	51.66	48.14	45.46
Estimated Total Fluids Removed (gal) (Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000													40.93	46.21	52.80	41.26
Vapor Phase Free Product Extraction Volume (gal) as of Jan 2000													6.55	7.93	10.19	5.85
Liquid Phase Free Product Extraction Volume (gal) as of Jan 2000													36.97	43.73	37.95	39.61
Groundwater Extraction Volume (gal) per each EFR Event ⁽¹⁾ as of Jan 2000													3.96	2.48	14.85	1.65
Total EFR Extraction Volume (gal) (Total Volume: free product + groundwater + product vapor)	234.00	498.00	683.00	904.76	360.00	564.26	725.54	298.00	239.00	265.00	249.07	350.00	47.48	54.14	62.99	47.11
Estimated Volume Removed Resulting from Drum Purging (GW purge water) if applicable ⁽¹⁾		235	-	139	-	-	374	-	-	199	82	-				357
Total Volume Removed from Site (gal) (Manifested volume) ⁽²⁾	234	733	683	1,044	360	564	1,100	298	239	464	331	350				538
Cumulative Total Free Product Removed (gal)	1,820	1,894	1,934	1,993	2,040	2,079	2,133	2,169	2,213	2,268	2,313	2,362	2,406	2,457	2,506	2,551
Extraction, Transportation & Disposal Cost ⁽²⁾	\$ 1,156.62	\$ 1														

Table 1
L.E. CARPENTER - Wharton, New Jersey
Free Product Recovery - EFR Well # 1 - 28

THROUGH 2ND QUARTER 2001

EFR Event Date	EFR #32 May 18, 2000 Feet of Product	EFR #33 June 16, 2000 Feet of Product	EFR #34 July 18, 2000 Feet of Product	EFR #35 August 17, 2000 Feet of Product	EFR #36 September 18, 2000 Feet of Product	EFR #37 October 25, 2000 Feet of Product	EFR #38 November 17, 2000 Feet of Product	EFR #39 December 15, 2000 Feet of Product	EFR #40 ⁽¹⁾ March 15, 2001 Feet of Product	EFR #41 April 23, 2001 Feet of Product	EFR #42 May 25, 2001 Feet of Product	EFR #43 June 13, 2001 Feet of Product	EFR AVERAGES	EFR TOTALS
Well No.	1.54 ⁽²⁾	2.10	1.51	1.26	1.53	1.00	1.07	1.14	2.91	1.25	1.02	1.14		
EFR-1	1.64	1.89	1.40	0.36	1.08	0.97	1.09	0.76	2.92	2.66	1.75	2.26		
EFR-2	0.62	1.02	0.25	0.02	0.08	0.44	0.43	0.46	0.33	0.29	0.49	0.70		
EFR-3	0.41	0.22	0.05	0.02	0.02	0.02	0.05	0.21	0.59	1.65	0.01	0.44		
EFR-4	1.84	2.34	1.99	1.69	1.57	2.74	2.47	2.76	5.95	1.75	1.90	0.62		
EFR-5	0.49	0.27	0.54	0.29	0.55	0.83	0.79	0.96	2.05	0.32	0.43	0.16		
EFR-6	0.02	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.28	0.02	0.02	0.00		
EFR-7	0.05	0.03	0.02	0.01	0.01	4.26	0.02	0.06	0.03	0.05	0.04	0.03		
EFR-8	0.06	0.06	0.12	0.16	0.08	0.02	0.50	0.77	0.57	0.07	0.56	0.07		
EFR-9	1.36	2.50	3.09	0.75	2.76	3.88	3.27	4.05	5.64	3.17	3.52	3.32		
EFR-10	2.93	2.49	4.12	0.79	4.73	0.16	4.00	3.73	2.82	2.41	3.56	2.60		
EFR-11	0.19	0.01	0.01	0.00	0.03	0.11	0.04	0.02	0.07	0.02	0.25	0.01		
EFR-12	0.69	0.55	0.73	0.49	0.22	0.25	0.09	0.15	1.14	0.27	0.78	0.36		
EFR-13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-14	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EFR-15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		
EFR-16	0.65	0.04	0.01	0.02	0.09	0.06	0.36	0.01	0.41	0.31	0.51	0.28		
EFR-17	0.32	0.01	0.06	0.16	0.08	0.31	0.31	0.20	3.27	1.35	0.43	0.31		
EFR-18	0.98	0.17	0.63	0.34	0.22	0.87	0.59	1.42	2.32	0.65	1.98	1.01		
EFR-19	0.54	0.33	0.30	0.39	0.45	0.54	0.11	0.37	0.24	0.97	0.52	0.31		
EFR-20	2.47	3.02	2.09	1.62	2.75	1.79	1.65	1.37	4.09	3.51	2.96	2.61		
EFR-21	0.05	0.05	0.01	0.18	0.06	0.53	2.14	1.50	0.81	0.06	0.43	0.00		
EFR-22	0.06	0.01	0.13	0.03	0.07	0.07	0.08	0.39	0.07	0.03	0.88	0.28		
EFR-23	0.03	0.00	0.00	0.00	0.01	0.01	0.01	0.04	2.27	0.05	0.34	0.01		
EFR-24	0.10	0.03	0.10	0.03	0.10	0.19	0.12	0.10	0.04	0.39	0.28	0.14		
EFR-25	2.02	1.44	2.25	1.38	2.01	2.05	1.78	1.10	2.64	2.56	2.68	1.48		
EFR-26	0.03	0.04	0.01	0.01	0.15	0.01	0.01	0.01	0.48	0.05	0.04	0.00		
EFR-27	1.81	2.68	1.72	2.48	2.02	1.39	1.36	0.64	2.81	2.75	1.86	2.34		
MIN (ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MAX (ft)	2.93	3.02	4.12	2.48	4.73	4.26	4.00	4.05	5.95	3.51	3.56	3.32		
Average (ft)	0.75	0.76	0.76	0.45	0.74	0.80	0.80	0.79	1.60	0.95	0.97	0.73		
Total Free Product (ft)	20.91	21.30	21.14	12.49	20.67	22.51	22.35	22.23	44.76	26.62	27.24	20.38		
Total Standing Free Product Volume (gal)	13.59	13.85	13.74	8.12	13.44	14.63	14.53	14.45	29.09	17.30	17.71	13.35		
Estimated Total Free Product Removed (gal) ⁽¹⁾ (Liquid and Vapor Phase Free Product Volume)	45.50	43.66	46.38	22.05	25.07	44.12	35.36	49.32	79.06	46.44	56.75	37.50	70	3,082
Estimated Total Fluids Removed (gal) (Liquid Phase Free Product Volume plus Groundwater Extraction Volume) as of Jan 2000	40.18	39.44	40.43	20.13	21.05	38.78	31.36	43.73	74.01	40.01	51.15	31.23	41	653
Vapor Phase Free Product Extraction Volume (gal) as of Jan 2000	6.31	5.05	7.60	5.22	5.26	6.58	5.65	6.42	11.06	8.49	8.90	7.50	7	115
Liquid Phase Free Product Extraction Volume (gal) as of Jan 2000	39.19	38.61	38.78	16.83	19.81	37.54	29.71	42.90	68.00	37.93	47.85	30.00	38	605
Groundwater Extraction Volume (gal) per each EFR Event ⁽¹⁾ as of Jan 2000	0.99	0.83	1.65	3.30	1.24	1.24	1.65	0.83	6.01	2.06	3.30	1.24	3	47
Total EFR Extraction Volume (gal) (Total Volume: free product + groundwater + product vapor)	46.49	44.49	48.03	25.35	26.31	45.36	37.01	50.15	85.07	48.50	60.05	38.73	322	14,185
Estimated Volume Removed Resulting from Drum Purging (GW purge water) if applicable ⁽¹⁾	110				134			148					196	3,337
Total Volume Removed from Site (gal) (Manifested volume) ⁽¹⁾	250				225			306			In Satellite Storage ⁽¹⁾		538	17,215
Cumulative Total Free Product Removed (gal)	2,597	2,640	2,687	2,709	2,734	2,778	2,813	2,863	2,942	2,988	3,045	3,082	N/A	3,082
Extraction, Transportation & Disposal Cost ⁽¹⁾	\$ 795.13				\$ 762.31			\$ 996.13			\$ 1,451.19		\$ 46,438.11	
Unit Cost per gal ⁽¹⁾	\$ 3.18				\$ 3.39			\$ 3.26			\$ 3.43		N/A	

TABLE 2
L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

THROUGH 2ND QUARTER 2001

	EPR Event Date	21-Nov-97	9-Dec-97	7-Jan-98	16-Feb-98	16-Mar-98	27-Mar-98	24-Apr-98	29-May-98	30-Jun-98	31-Jul-98	24-Aug-98	17-Sep-98
Western Region of Free Product	EPR-1	1.64	1.53	1.94	2.48	0.93	0.94	1.42	1.55	2.11	1.28	1.22	1.71
	EPR-2	1.55	1.50	1.86	2.20	2.96	2.92	2.65	2.44	1.78	1.12	1.09	1.21
	EPR-3	0.85	1.02	1.27	1.58	1.19	0.03	0.24	0.19	0.77	0.72	0.93	1.03
	EPR-17	0.04	0.17	1.56	0.17	0.08	0.00	0.09	0.00	0.02	0.37	0.29	0.46
	EPR-18	0.10	0.10	0.09	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.14	0.48
	EPR-20	0.40	0.34	0.95	0.27	0.00	0.00	0.04	0.24	0.37	0.65	0.63	0.79
	EPR-21	2.36	2.40	2.71	2.74	4.14	3.97	4.23	3.98	3.29	1.97	1.87	1.86
	EPR-28	2.20	2.30	1.78	2.60	3.20	3.48	4.40	3.16	2.61	1.47	1.73	1.69
	Total Free Product (ft)	9.14	9.36	12.16	12.04	12.50	11.34	13.07	11.56	10.96	7.66	7.90	9.23
	Total Free Product (gal)	5.86	6.00	7.79	7.72	8.01	7.27	8.38	7.41	7.03	4.91	5.06	6.00
West-Central Region of Free Product	EPR-4	1.03	2.27	0.54	0.30	0.00	0.00	0.00	0.00	0.03	0.38	1.23	2.40
	EPR-5	4.03	3.74	4.25	3.29	3.39	1.71	2.71	2.02	1.86	2.38	2.52	2.33
	EPR-6	0.72	1.00	1.24	2.27	1.71	1.17	2.23	1.55	1.56	1.96	1.56	1.42
	EPR-7	0.17	0.09	0.16	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.07
	EPR-19	0.54	2.80	1.89	1.95	1.63	1.44	0.88	0.65	0.42	0.90	1.26	1.68
	EPR-22	3.78	4.10	0.05	3.40	4.69	3.42	1.82	1.22	0.96	2.86	2.87	2.97
	EPR-23	0.00	0.06	0.06	0.02	0.00	0.00	0.00	0.00	0.05	0.11	0.08	0.27
	EPR-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EPR-25	2.95	3.00	3.55	4.15	3.11	0.72	0.82	0.79	0.78	0.60	0.41	0.29
	EPR-26	2.20	2.05	2.66	2.30	2.12	1.43	1.32	1.95	1.21	2.06	1.58	1.17
	EPR-27	0.15	0.02	2.71	0.74	0.00	0.00	0.03	0.00	0.02	0.33	0.45	1.49
	Total Free Product (ft)	15.57	19.13	17.11	18.42	16.65	9.89	9.81	8.18	6.91	11.60	11.99	14.09
	Total Free Product (gal)	9.98	12.26	10.97	11.81	10.67	6.34	6.29	5.24	4.43	7.44	7.69	9.16
East-Central Region of Free Product	EPR-8	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.03	0.04	0.08	0.13
	EPR-9	0.00	1.10	1.79	0.16	3.08	0.08	0.07	0.11	0.29	0.61	0.98	1.23
	EPR-10	5.20	5.80	6.42	7.47	7.06	6.05	6.71	5.47	5.68	4.94	4.52	4.34
	EPR-11	3.07	4.04	4.28	4.47	4.32	4.67	5.91	5.73	6.08	4.73	4.47	3.95
	EPR-12	0.04	0.03	0.00	0.07	0.00	0.00	0.00	0.02	0.28	0.22	0.28	0.24
	EPR-13	0.48	0.56	1.33	1.28	1.07	1.07	0.67	0.00	0.90	0.56	0.48	0.66
	Total Free Product (ft)	8.79	11.53	13.82	13.53	15.53	11.87	13.36	11.33	13.26	11.10	10.81	10.55
	Total Free Product (gal)	5.63	7.39	8.86	8.67	9.95	7.61	8.56	7.26	8.50	7.12	6.93	6.86
Eastern Region of Free Product	EPR-14	0.10	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EPR-15	0.09	0.12	0.27	0.06	0.00	0.00	0.00	0.00	0.03	0.02	0.03	0.03
	EPR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	0.19	0.28	0.27	0.06	0.00	0.00	0.00	0.00	0.03	0.02	0.03	0.03
	Total Free Product (gal)	0.12	0.18	0.17	0.04	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.02
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		21.60	25.83	27.79	28.24	28.64	21.22	23.23	19.92	19.97	19.47	19.70	22.03

TABLE 2
L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

EFR Event Date	22-Oct-98	20-Nov-98	18-Dec-98	13-Jan-99	17-Feb-99	23-Mar-99	19-Apr-99	18-May-99	22-Jun-99	28-Jul-99	27-Aug-99	22-Sep-99	
Western Region of Free Product	EFR-1	1.59	1.71	1.57	0.53	1.79	3.68	1.13	1.09	1.15	1.49	1.27	1.94
	EFR-2	1.29	1.51	1.41	0.95	1.40	2.42	1.46	1.22	0.92	1.21	1.00	0.63
	EFR-3	1.01	1.19	1.18	1.14	1.01	1.63	0.36	0.25	0.86	0.88	1.03	0.74
	EFR-17	0.56	0.71	0.53	0.26	0.08	0.06	0.06	0.08	0.12	0.39	0.36	0.10
	EFR-18	0.68	0.98	1.08	0.56	0.11	0.00	0.06	0.16	0.46	0.96	1.37	0.61
	EFR-20	1.24	1.85	2.11	0.65	1.33	0.88	0.43	0.89	0.87	1.59	1.86	0.47
	EFR-21	1.77	1.67	1.62	1.21	1.43	2.62	2.35	1.49	1.46	1.57	1.04	1.01
	EFR-28	1.83	1.79	1.74	1.03	1.29	1.71	1.65	1.46	1.25	1.67	1.78	0.38
	Total Free Product (ft)	9.97	11.41	11.24	6.33	8.44	13.00	7.50	6.64	7.09	9.76	9.71	5.88
	Total Free Product (gal)	6.48	7.42	7.31	4.11	5.49	8.45	4.88	4.32	4.61	6.34	6.31	3.82
West-Central Region of Free Product	EFR-4	2.17	1.75	1.79	0.73	0.10	0.14	0.08	0.05	0.03	0.44	0.99	0.51
	EFR-5	2.52	2.19	2.28	2.68	3.47	6.15	2.65	2.61	2.66	2.66	1.57	1.77
	EFR-6	1.25	1.29	1.38	0.49	0.84	0.88	0.61	1.07	1.16	1.51	0.91	0.15
	EFR-7	0.05	0.20	0.16	0.02	0.04	0.04	0.07	0.02	0.08	0.28	0.05	0.01
	EFR-19	1.95	2.31	2.44	1.83	1.68	0.52	0.44	0.52	1.10	2.05	2.02	0.51
	EFR-22	2.83	2.58	2.27	2.06	0.84	0.34	0.95	1.39	1.93	1.47	1.41	0.17
	EFR-23	1.03	3.07	2.29	1.55	0.91	0.47	0.22	0.25	0.45	2.13	1.03	0.12
	EFR-24	0.03	0.12	0.14	0.38	0.06	0.00	0.00	0.00	0.08	0.08	0.05	0.00
	EFR-25	0.41	1.33	1.58	1.05	1.75	1.19	1.08	0.76	0.54	1.74	1.48	0.21
	EFR-26	1.24	1.08	1.09	0.73	0.55	0.45	0.75	1.29	1.28	1.23	0.72	0.29
	EFR-27	0.54	0.47	0.51	0.09	0.12	0.00	0.00	0.02	0.03	0.17	0.21	0.06
	Total Free Product (ft)	14.02	16.39	15.93	11.61	10.36	10.18	6.85	7.98	9.34	13.76	10.44	3.80
	Total Free Product (gal)	9.11	10.65	10.35	7.55	6.73	6.62	4.45	5.19	6.07	8.94	6.79	2.47
East-Central Region of Free Product	EFR-8	0.09	0.07	0.03	0.12	0.00	0.03	0.03	0.03	0.09	0.39	0.27	0.09
	EFR-9	1.31	1.26	1.86	0.74	0.49	0.06	0.11	0.32	0.49	1.16	0.56	0.41
	EFR-10	4.38	3.98	3.99	3.68	5.79	5.52	4.97	4.23	3.71	3.63	2.47	3.02
	EFR-11	4.06	3.65	3.52	2.42	4.69	2.84	2.02	2.48	3.28	2.78	1.57	1.93
	EFR-12	0.15	0.29	0.17	0.04	0.11	0.05	0.02	0.02	0.10	0.30	0.20	0.03
	EFR-13	0.82	1.13	1.30	0.22	1.19	0.15	0.49	0.50	0.44	1.33	1.01	0.74
	Total Free Product (ft)	10.81	10.38	10.87	7.22	12.27	8.65	7.64	7.58	8.11	9.59	6.08	6.22
	Total Free Product (gal)	7.03	6.75	7.07	4.69	7.98	5.62	4.97	4.93	5.27	6.23	3.95	4.04
Eastern Region of Free Product	EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-15	0.12	0.12	0.32	0.11	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04
	EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	0.12	0.12	0.32	0.11	0.07	0.01	0.01	0.00	0.00	0.00	0.13	0.04
	Total Free Product (gal)	0.08	0.08	0.21	0.07	0.04	0.01	0.01	0.00	0.00	0.00	0.08	0.03
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		22.70	24.89	24.93	16.42	20.24	20.70	14.30	14.43	15.95	21.52	17.13	10.36

TABLE 2
L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

EFR Event Date	27-Oct-99	30-Nov-99	16-Dec-99	28-Jan-00	18-Feb-00	24-Mar-00	19-Apr-00	18-May-00	16-Jun-00	18-Jul-00	17-Aug-00	18-Sep-00	
Western Region of Free Product	EFR-1	1.61	1.47	1.20	1.22	0.85	1.86	1.59	1.54	2.10	1.51	1.26	1.53
	EFR-2	1.35	1.28	1.40	0.06	1.04	2.25	2.00	1.64	1.89	1.40	0.36	1.08
	EFR-3	0.69	0.47	0.02	0.51	0.07	0.08	0.09	0.62	1.02	0.25	0.02	0.08
	EFR-17	0.06	0.24	0.25	0.11	0.32	0.04	0.16	0.65	0.04	0.01	0.02	0.09
	EFR-18	0.36	0.77	0.05	0.20	0.05	0.12	0.04	0.32	0.01	0.06	0.16	0.08
	EFR-20	1.92	1.36	0.75	1.08	2.58	0.64	0.42	0.54	0.33	0.30	0.39	0.45
	EFR-21	2.32	1.40	1.70	1.92	1.34	3.04	2.86	2.47	3.02	2.09	1.62	2.75
	EFR-28	2.19	0.96	1.42	1.33	1.00	2.30	2.42	1.81	2.68	1.72	2.48	2.02
	Total Free Product (ft)	10.52	7.95	6.79	6.43	7.25	10.33	9.58	9.59	11.09	7.34	6.31	8.08
	Total Free Product (gal)	6.84	5.17	4.41	4.18	4.71	6.71	6.23	6.23	7.21	4.77	4.10	5.25
West-Central Region of Free Product	EFR-4	0.11	0.03	0.58	0.51	0.48	0.11	0.11	0.41	0.22	0.05	0.02	0.02
	EFR-5	3.23	2.99	1.27	2.95	2.46	2.91	2.54	1.84	2.34	1.99	1.69	1.57
	EFR-6	0.86	0.63	0.33	1.07	0.77	0.29	0.31	0.49	0.27	0.54	0.29	0.55
	EFR-7	0.07	0.04	0.47	0.15	0.02	0.35	0.01	0.02	-	-	0.01	-
	EFR-19	1.54	0.84	0.69	1.67	1.73	0.25	0.60	0.98	0.17	0.63	0.34	0.22
	EFR-22	2.22	1.76	0.53	0.82	0.58	0.09	0.16	0.05	0.05	0.01	0.18	0.07
	EFR-23	0.53	0.64	0.24	0.23	0.31	0.46	0.06	0.06	0.01	0.13	0.03	0.07
	EFR-24	0.00	0.04	0.13	0.11	0.07	0.58	0.02	0.03	-	-	0.01	-
	EFR-25	0.39	0.19	0.05	0.31	0.39	0.58	0.21	0.10	0.03	0.10	0.03	0.10
	EFR-26	0.52	0.94	0.59	1.54	1.10	1.33	1.68	2.02	1.44	2.25	1.38	2.01
	EFR-27	0.01	0.01	0.01	0.02	0.14	0.20	0.01	0.03	0.04	0.01	0.01	0.15
	Total Free Product (ft)	9.48	8.11	4.89	9.38	8.05	7.15	5.71	6.03	4.57	5.71	3.98	4.76
	Total Free Product (gal)	6.16	5.27	3.18	6.10	5.23	4.65	3.71	3.92	2.97	3.71	2.59	3.09
East-Central Region of Free Product	EFR-8	0.13	0.05	0.11	0.05	0.06	0.08	0.03	0.05	0.03	0.02	0.01	0.01
	EFR-9	0.28	0.10	0.15	0.13	0.08	0.19	0.02	0.06	0.06	0.12	0.16	0.08
	EFR-10	5.18	3.95	3.07	4.50	3.55	3.50	4.50	1.36	2.50	3.09	0.75	2.76
	EFR-11	3.20	3.11	1.07	3.44	4.95	2.41	2.95	2.93	2.49	4.12	0.79	4.73
	EFR-12	0.09	0.67	0.01	0.03	0.49	0.46	0.10	0.19	0.01	0.01	0.00	0.03
	EFR-13	0.78	0.57	0.26	0.36	0.34	0.48	0.47	0.69	0.55	0.73	0.49	0.22
	Total Free Product (ft)	9.66	8.45	4.67	8.51	9.47	7.12	8.07	5.28	5.64	8.09	2.20	7.83
	Total Free Product (gal)	6.28	5.49	3.04	5.53	6.16	4.63	5.25	3.43	3.67	5.26	1.43	5.09
Eastern Region of Free Product	EFR-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EFR-15	0.02	0.08	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00
	EFR-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Free Product (ft)	0.02	0.08	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00
	Total Free Product (gal)	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		19.29	15.98	10.64	15.82	16.11	16.00	15.20	13.59	13.85	13.74	8.12	13.44

TABLE 2
L.E. CARPENTER - WHARTON, NEW JERSEY
REGIONAL APPARENT FREE PRODUCT TRENDS

THROUGH 2ND QUARTER 2001

EPR Event Date		25-Oct-00	17-Nov-00	15-Dec-00	15-Mar-01	23-Apr-01	25-May-01	13-Jun-01
Western Region of Free Product	EPR-1	1.00	1.07	1.14	2.91	1.25	1.02	1.14
	EPR-2	0.97	1.09	0.76	2.92	2.66	1.75	2.26
	EPR-3	0.44	0.43	0.46	0.33	0.29	0.49	0.70
	EPR-17	0.06	0.36	0.01	0.41	0.31	0.51	0.28
	EPR-18	0.31	0.31	0.20	3.27	1.35	0.43	0.31
	EPR-20	0.54	0.11	0.37	0.24	0.97	0.52	0.31
	EPR-21	1.79	1.65	1.37	4.09	3.51	2.96	2.61
	EPR-28	1.39	1.36	0.64	2.81	2.75	1.86	2.34
	Total Free Product (ft)	6.50	6.38	4.95	16.98	13.09	9.54	9.95
	Total Free Product (gal)	4.23	4.15	3.22	11.04	8.51	6.20	6.47
West-Central Region of Free Product	EPR-4	0.02	0.05	0.21	0.59	1.65	0.01	0.44
	EPR-5	2.74	2.47	2.76	5.95	1.75	1.90	0.62
	EPR-6	0.83	0.79	0.96	2.05	0.32	0.43	0.16
	EPR-7	0.01	0.01	0.01	0.28	0.02	0.02	0.00
	EPR-19	0.87	0.59	1.42	2.32	0.65	1.98	1.01
	EPR-22	0.53	2.14	1.50	0.81	0.06	0.43	0.00
	EPR-23	0.07	0.08	0.39	0.07	0.03	0.88	0.28
	EPR-24	0.01	0.01	0.04	2.27	0.05	0.34	0.01
	EPR-25	0.19	0.12	0.10	0.04	0.39	0.28	0.14
	EPR-26	2.05	1.78	1.10	2.64	2.56	2.68	1.48
	EPR-27	0.01	0.01	0.01	0.48	0.05	0.04	0.00
	Total Free Product (ft)	7.33	8.05	8.50	17.50	7.53	8.99	4.14
	Total Free Product (gal)	4.76	5.23	5.53	11.38	4.89	5.84	2.69
East-Central Region of Free Product	EPR-8	0.16	0.02	0.06	0.03	0.05	0.04	0.03
	EPR-9	0.02	0.50	0.77	0.57	0.07	0.56	0.07
	EPR-10	3.88	3.27	4.05	5.64	3.17	3.52	3.32
	EPR-11	4.26	4.00	3.73	2.82	2.41	3.56	2.60
	EPR-12	0.11	0.04	0.02	0.07	0.02	0.25	0.01
	EPR-13	0.25	0.09	0.15	1.14	0.27	0.28	0.26
	Total Free Product (ft)	8.68	7.92	8.78	10.27	5.99	8.71	6.29
Eastern Region of Free Product	Total Free Product (gal)	5.64	5.15	5.71	6.68	3.89	5.66	4.09
	EPR-14	0.00	0.00	0.00	0.00	0.00	0.00	0
	EPR-15	0.00	0.00	0.00	0.01	0.01	0.00	0
	EPR-16	0.00	0.00	0.00	0.00	0.00	0.00	0
	Total Free Product (ft)	0.00	0.00	0.00	0.01	0.01	0.00	0.00
TOTAL APPARENT FREE PRODUCT VOLUME (GAL)		14.63	14.53	14.45	29.09	17.30	17.71	13.25

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR #41

DATE

23-Apr-01

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
EFR-1	9.35	10.6	1.25
EFR-2	9.83	12.49	2.66
EFR-3	9.96	10.25	0.29
EFR-4	11.26	12.91	1.65
EFR-5	9.71	11.46	1.75
EFR-6	9.35	9.67	0.32
EFR-7	5.71	5.73	0.02
EFR-8	5.33	5.38	0.05
EFR-9	5.64	5.71	0.07
EFR-10	6.22	9.39	3.17
EFR-11	5.88	8.29	2.41
EFR-12	4.92	4.94	0.02
EFR-13	4.48	4.75	0.27
EFR-14	4.32	4.32	0.00
EFR-15	3.65	3.66	0.01
EFR-16	4.39	4.39	0.00
EFR-17	8.7	9.01	0.31
EFR-18	8.7	10.05	1.35
EFR-19	11.57	12.22	0.65
EFR-20	9.8	10.77	0.97
EFR-21	8.16	11.67	3.51
EFR-22	11.63	11.69	0.06
EFR-23	7.93	7.96	0.03
EFR-24	11.19	11.24	0.05
EFR-25	10.71	11.1	0.39
EFR-26	12.37	14.93	2.56
EFR-27	11.04	11.09	0.05
EFR-28	8.68	11.43	2.75

Total Volume
Of Free
Standing
Product (gal) 17.30

CEMCO FIELD TECHNICIAN: Gary Pizzuti

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

**MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG**

EFR #41

23-Apr-01

WELL ID	EXTRACTION TIME		VAPOR PHASE CONCENTRATION		SYSTEM RECOVERY DATA			
	TOTAL TIME (min)	TOTAL TIME (hrs)	PPM	LEL (%)	VACUUM In Hg	CFM	lbs/hr	Total lbs
EFR-1	5.0	0.0833	1,443	22	17	100	7.04	0.5869
EFR-2	10.0	0.1667	3,214	49	17	100	15.69	2.6145
EFR-3	4.0	0.0667	394	6	17	100	1.92	0.1281
EFR-4	3.0	0.0500	6,560	100	17	100	32.01	1.6007
EFR-5	15.0	0.2500	6,560	100	17	100	32.01	8.0036
EFR-6	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-7	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-8	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-9	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-10	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-11	15.0	0.2500	6,560	100	17	100	32.01	8.0036
EFR-12	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-13	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-14	0.0	0.0000	0		17	100	0.00	0.0000
EFR-15	0.0	0.0000	0		17	100	0.00	0.0000
EFR-16	0.0	0.0000	0		17	100	0.00	0.0000
EFR-17	3.0	0.0500	6,560	100	17	100	32.01	1.6007
EFR-18	5.0	0.0833	6,560	100	17	100	32.01	2.6679
EFR-19	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-20	5.0	0.0833	6,560	100	17	100	32.01	2.6679
EFR-21	20.0	0.3333	6,560	100	17	100	32.01	10.6714
EFR-22	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-23	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-24	1.0	0.0167	0	100	17	100	0.00	0.0000
EFR-25	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-26	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-27	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-28	15.0	0.2500	6,560	100	17	100	32.01	8.0036
Total EFR Time (hrs)	2.3000	Avg ppm	5895.05				TOTAL (LBS)	66,2909
							TOTAL VAPOR PHASE VOLUME (GAL)	8,4893

Where:

$$\begin{aligned}
 \text{ppm} &= \text{Parts per Million by Volume} \\
 \text{Flow} &= \text{Cubic feet per minute (CFM)} & 350 \\
 \text{Molar Mass (MM)} &= \text{Molecular Weight (lb/lb-mole)} & 292 & (2) \\
 \text{IGC} &= \text{Ideal Gas Constant (359 ft}^3/\text{lb-mole)} & 359 \\
 \text{LEL} &= \text{Free Product Mixture} & 0.656 & (1) \\
 \text{SG} &= \text{Specific Gravity} & 0.9363 & (3)
 \end{aligned}$$

NOTE: FPM = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)

(1) Weighted LEL for analyte mixture @ 0.65% (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WF-B5 & V Analyte LELs: DEHP @ 0.3%; Ethylbenzene @ 1%; Xylenes @ 1%)

NOTE: (2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WF-B5 & WF-B4)

Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2; Total Xylenes @ 106.2

(3) Average specific gravity of 0.9363 (KMT, Inc. product sampling in October 1999 @ MW-IR; EFR-11 & WF-A8)

$$\text{Pounds / Hr (lbs/hr)} = (\text{ppm} \times (60 \text{ min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359 \text{ ft}^3/\text{lb-mole}))$$

Free Product & Groundwater Gauging (55-Gal Drum)	
Product Thickness (in)	23.00
Groundwater Thickness (in)	1.25
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	37.95
Total Groundwater Volume (gal)	2.06
Ratio Groundwater to Free Product (gal/gal)	0.05

	Y (gal)
Total Recovered Groundwater Volume (gal)	2.06
Total Recovered Free Product Volume (gal)	37.95
Total Recovered Fluids Volume (gal)	40.01

TOTAL EFR PRODUCT VOLUME **46.44 GAL**

Date	23-Apr-01
Project #	386824
Subcontractor	CEMCO
Vac Head Utilized	NORTECH Corp. 551B

CEMCO Field Technician: Gary Pizzuti

RMT Project Manager: Nick Clevert

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR #42

DATE

25-May-01

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT TICKNESS (ft)
EFR-1	10.09	11.11	1.02
EFR-2	10.56	12.31	1.75
EFR-3	10.68	11.17	0.49
EFR-4	12.1	12.11	0.01
EFR-5	10.41	12.31	1.90
EFR-6	10.03	10.46	0.43
EFR-7	6.84	6.86	0.02
EFR-8	5.96	6	0.04
EFR-9	6.28	6.84	0.56
EFR-10	6.9	10.42	3.52
EFR-11	6.48	10.04	3.56
EFR-12	5.51	5.76	0.25
EFR-13	5.04	5.82	0.78
EFR-14	4.9	4.9	0.00
EFR-15	4.2	4.2	0.00
EFR-16	4.87	4.87	0.00
EFR-17	9.42	9.93	0.51
EFR-18	9.39	9.82	0.43
EFR-19	12.34	14.32	1.98
EFR-20	10.5	11.02	0.52
EFR-21	8.92	11.88	2.96
EFR-22	12.46	12.89	0.43
EFR-23	8.69	9.57	0.88
EFR-24	11.76	12.1	0.34
EFR-25	11.51	11.79	0.28
EFR-26	13.03	15.71	2.68
EFR-27	11.76	11.8	0.04
EFR-28	9.46	11.32	1.86

Total Volume
Of Free
Standing
Product (gal) 17.71

CEMCO FIELD TECHNICIAN: Gary Pizzuti

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY
MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #42

25-May-01

WELL ID	EXTRACTION TIME		VAPOR PHASE CONCENTRATION		SYSTEM RECOVERY DATA			
	TOTAL TIME (min)	TOTAL TIME (hrs)	PPM	LEL (%)	VACUUM In Hg	CFM	Ibs/hr	Total Ibs
EFR-1	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-2	15.0	0.2500	6,560	100	17	100	32.01	8.0036
EFR-3	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-4	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-5	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-6	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-7	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-8	0.5	0.0083	1,050	16	17	100	5.12	0.0427
EFR-9	1.0	0.0167	1,706	26	17	100	8.32	0.1367
EFR-10	15.0	0.2500	5,970	91	17	100	29.13	7.2832
EFR-11	15.0	0.2500	6,560	100	17	100	32.01	8.0036
EFR-12	2.0	0.0333	1,706	26	17	100	8.32	0.2775
EFR-13	1.0	0.0167	1,246	19	17	100	6.08	0.1014
EFR-14	0.0	0.0000	0		17	100	0.00	0.0000
EFR-15	0.0	0.0000	0		17	100	0.00	0.0000
EFR-16	0.0	0.0000	0		17	100	0.00	0.0000
EFR-17	1.0	0.0167	6,560	100	17	100	32.01	5.3356
EFR-18	0.5	0.0083	6,560	100	17	100	32.01	0.2668
EFR-19	12.0	0.2000	6,560	100	17	100	32.01	6.4029
EFR-20	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-21	20.0	0.3333	6,560	100	17	100	32.01	10.6714
EFR-22	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-23	3.0	0.0500	6,560	100	17	100	32.01	1.6007
EFR-24	3.0	0.0500	0	100	17	100	0.00	0.0000
EFR-25	1.0	0.0167	6,560	100	17	100	32.01	5.3356
EFR-26	15.0	0.2500	6,560	100	17	100	32.01	8.0036
EFR-27	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-28	5.0	0.0833	6,560	100	17	100	32.01	2.6679
Total EFR time (hrs)	23.000	Avg ppm	5420.51				TOTAL IBS	69.4709
							TOTAL VAPOR PHASE VOLUME (GAL)	8.8966

Where:

(1) ppm = (% LEL on Meter) x (LEL of Product Mixture) x (1,000,000)
(1) Weighted LEL for analyte mixture @ 0.56% (based on DEHP, Ethylbenzene & Total Xylene concentration:
in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WF-B5 & V
Analyte LELs: DEHP @ 0.3%; Ethylbenzene @ 1%; Xylenes @ 1.1%

ppm =	Parts per Million by Volume
Flow =	Cubic feet per minute (CFM)
Molar Mass (MM) =	292 (2)
ICGC =	Ideal Gas Constant (359 ft ³ /lb-mole)
LEL =	Free Product Mixture = 0.656 (1)
SG =	Specific Gravity = 0.9363 (3)

(2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R; MW-11S; MW-6R; WF-B5 & V)
Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2; Total Xylenes @ 106.2
(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R; EFR-11 & WF-A4)

$$\text{Pounds/Hr (lbs/hr)} = (\text{ppm} \times (60 \text{ min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359 \text{ ft}^3/\text{lb-mole}))$$

Free Product & Groundwater Gauging (55-Gal Drum)	
Product Thickness (in)	29.00
Groundwater Thickness (in)	2.00
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	47.85
Total Groundwater Volume (gal)	3.30
Ratio Groundwater to Free Product (gal/gal)	0.07

	Y (gal)
Total Recovered Groundwater Volume (gal)	3.30
Total Recovered Free Product Volume (gal)	47.85
Total Recovered Fluids Volume (gal)	51.15

TOTAL EFR PRODUCT VOLUME 56.75 GAL

Date	25-May-01
Project #	3868.24
Subcontractor	CEMCO
Vac Head Utilized	NORTECH Corp. 551B

CEMCO Field Technician Gary Pizzuti

RMT Project Manager Nick Clevett

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY

MONTHLY EFR WELL GAUGING LOG

EFR #43

DATE

13-Jun-01

WELL ID	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	PRODUCT TICKNESS (ft)
EFR-1	9.75	10.89	1.14
EFR-2	10.22	12.48	2.26
EFR-3	10.48	11.18	0.70
EFR-4	11.68	12.12	0.44
EFR-5	10.11	10.73	0.62
EFR-6	9.75	9.91	0.16
EFR-7	6.09	6.09	0.00
EFR-8	5.7	5.73	0.03
EFR-9	5.94	6.01	0.07
EFR-10	6.62	9.94	3.32
EFR-11	6.24	8.84	2.60
EFR-12	5.31	5.32	0.01
EFR-13	4.84	5.1	0.26
EFR-14	4.71	4.71	0.00
EFR-15	4.04	4.04	0.00
EFR-16	4.64	4.64	0.00
EFR-17	9.1	9.38	0.28
EFR-18	9.11	9.42	0.31
EFR-19	11.99	13	1.01
EFR-20	10.19	10.5	0.31
EFR-21	8.58	11.19	2.61
EFR-22	12.04	12.04	0.00
EFR-23	8.36	8.64	0.28
EFR-24	11.46	11.47	0.01
EFR-25	11.12	11.26	0.14
EFR-26	12.81	14.29	1.48
EFR-27	11.4	11.4	0.00
EFR-28	9.09	11.43	2.34

Total Volume
Of Free
Standing
Product (gal)
13.25

CEMCO FIELD TECHNICIAN: Gary Pizzuti

TABLE 3
L. E. CARPENTER - WHARTON, NEW JERSEY
MONTHLY EFR
VAPOR AND LIQUID PHASE VOLUMETRIC CALCULATION LOG

EFR #43

13-Jun-01

WELL ID	EXTRACTION TIME		VAPOR PHASE CONCENTRATION		SYSTEM RECOVERY DATA			
	TOTAL TIME (min)	TOTAL TIME (hrs)	PPM	LEL (%)	VACUUM in Hg	CFM	lbs/hr	Total lbs
EFR-1	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-2	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-3	5.0	0.0833	6,560	100	17	100	32.01	2.6679
EFR-4	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-5	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-6	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-7	0.0	0.0000	0		17	100	0.00	0.0000
EFR-8	5.0	0.0833	459	7	17	100	2.24	0.1867
EFR-9	5.0	0.0833	2,821	43	17	100	13.77	1.1472
EFR-10	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-11	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-12	0.3	0.0042	1,902	29	17	100	9.28	0.0387
EFR-13	4.0	0.0667	1,902	29	17	100	9.28	0.6189
EFR-14	0.0	0.0000	0		17	100	0.00	0.0000
EFR-15	0.0	0.0000	0		17	100	0.00	0.0000
EFR-16	0.0	0.0000	0		17	100	0.00	0.0000
EFR-17	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-18	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-19	5.0	0.0833	6,560	100	17	100	32.01	2.6679
EFR-20	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-21	15.0	0.2500	6,560	100	17	100	32.01	8.0036
EFR-22	0.0	0.0000	6,560	100	17	100	32.01	0.0000
EFR-23	2.0	0.0333	6,560	100	17	100	32.01	1.0671
EFR-24	0.3	0.0055	0	100	17	100	0.00	0.0000
EFR-25	1.0	0.0167	6,560	100	17	100	32.01	0.5336
EFR-26	10.0	0.1667	6,560	100	17	100	32.01	5.3357
EFR-27	0.0	0.0000	6,560	100	17	100	32.01	0.0000
EFR-28	11.0	0.1833	6,560	100	17	100	32.01	5.8693
Total EFR time (hrs)	2.0097	Avg ppm	5602.84				TOTAL Q (BS)	58.5501
							TOTAL VAPOR PHASE VOLUME (GAL)	7.4980

Where:

$$\begin{aligned}
 \text{ppm}_v &= \text{Parts per Million by Volume} \\
 \text{Flow} &= \text{Cubic feet per minute (CFM)} & 350 \\
 \text{in} &= \text{Molecular Weight (lb/lb-mole)} & 292 & \text{(a)} \\
 \text{Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R, MW-11S, MW-6R, WP-B5 & V} \\
 \text{Analyte LEls: DEHP @ 0.3%, Ethylbenzene @ 1%; Xylenes @ 1.1\%} \\
 \text{Molar Mass (MM) = } & \text{IGC = Ideal Gas Constant (359 ft}^3/\text{lb-mole) = 359} \\
 \text{Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations)} & \text{LEL = Free Product Mixture = 0.656 (1)} \\
 \text{(1) Weighted LEL for analyte mixture @ 0.656% (based on DEHP, Ethylbenzene & Total Xylene concentration)} & \text{SG = Specific Gravity = 0.9363 (3)} \\
 \text{in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R, MW-11S, MW-6R, WP-B5 & V} &
 \end{aligned}$$

(NOTE) (2) Avg. Molar Mass @ 292 (based on DEHP, Ethylbenzene & Total Xylene concentrations in Roy F. Weston product sampling conducted on Feb 27, 1995 @ MW-1R, MW-11S, MW-6R, WP-B5 & V)

(1) Individual Analyte Molar Mass: DEHP @ 390.54; Ethylbenzene @ 106.2

(3) Average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999 @ MW-1R, EFR-11 & WP-A8)

$$\text{Pounds/Hr (lbs/hr)} = (\text{ppm}_v \times (60 \text{ min/hr}) \times (\text{CFM}) \times (\text{MM})) / ((1 \times 10^6) \times (359 \text{ ft}^3/\text{lb-mole}))$$

Free Product & Groundwater Gauging (55-Gal Drum)	
Product Thickness (in)	18.18
Groundwater Thickness (in)	0.75
Conversion @ 1.65 gal/inch	1.65
Total Product Volume (gal)	30.00
Total Groundwater Volume (gal)	1.24
Ratio Groundwater to Free Product (gal/gal)	0.04

Date	13-Jun-01
Project #	3868.24
Subcontractor	CEMCO
Vac Head Utilized	NORTECH Corp. 551B

Total Recovered Groundwater Volume (gal)	1.24
Total Recovered Free Product Volume (gal)	30.00
Total Recovered Fluids Volume (gal)	31.23
TOTAL EFR PRODUCT VOLUME	37.50 GAL

CEMCO Field Technician Gary Pizzuti

RMT Project Manager Nick Clevert

TABLE 4
L.E. CARPENTER - WHARTON, NEW JERSEY
QUARTERLY MONITORING PROTOCOL.
(Revised Per NJDEP Letter Dated April 5, 2001)

Monitoring Well	Bottom of Well (ft)	Analytical Parameters	Rational	Comments
MW-14I	40.96', 2"	BTEX ⁽¹⁾ DEHP ⁽²⁾	Analytical results will identify the migration of the dissolved groundwater plume in the Intermediate Aquifer Zone downgradient of the site (Wharton Enterprise property)	Original Monitoring Well
MW-15S	17.47', 4"	BTEX ⁽¹⁾ DEHP ⁽²⁾	Analytical results will identify if the dissolved groundwater plume is migrating through this portion of the shallow aquifer zone (on the rail spur right-of-way)	Original Monitoring Well
MW-15I	38.34', 2"	BTEX ⁽¹⁾ DEHP ⁽²⁾	Analytical results will identify the migration of the dissolved groundwater plume through the Intermediate Aquifer Zone in the area (on rail spur right-of-way)	Original Monitoring Well
MW-22R	11', 2"	BTEX ⁽¹⁾ DEHP ⁽¹⁾	Analytical results will identify the movement of the dissolved groundwater plume in the shallow aquifer zone downgradient of the site (Wharton Enterprise property).	Original Monitoring Well; Beginning in 2nd quarter 2001, well will be analyzed for DEHP quarterly vs. semiannually
MW-25R	11', 2"	BTEX ⁽¹⁾ DEHP ⁽¹⁾	Analytical results will identify the movement of the dissolved groundwater plume in the shallow aquifer zone downgradient of the site. East of MW-22R (Wharton Enterprise property).	DEHP sampling required quarterly as opposed to semi annually per Nov 23, 1998 NJDEP Letter.
MW-17S ⁽³⁾	13.4', 4"	BTEX DEHP	Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone.	Original Monitoring Well
MW-4	27', 2"	BTEX ⁽¹⁾ DEHP ⁽²⁾	Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone (south portion of subject site, bordering on the Rockaway River)	Original Monitoring Well
MW-11D(R)	161'	DEHP ⁽¹⁾	Analytical results from this well identify potential contamination of deep aquifer. This well lies in the center of the free product plume.	New well added to monitoring protocol as of May 21, 1999 NJDEP Letter (review of 1st quarter 1999 monitoring report). Well exhibited DEHP contamination potentially as the result of draw down during well installation. Well will be sampled for both monitoring program parameters (BTEX & DEHP) per NJDEP letter dated Aug 17, 1999. As of 4th Quarter 2000 (1 year of BTEX and DEHP sampling), approval was requested from NJDEP and USEPA to remove this well from the quarterly sampling program. NJDEP response letter dated April 5, 2001 following review of the 4th Quarter 2000 monitoring report requested that MW-11D(R) be sampled quarterly for DEHP ONLY.
MW-21	15.0'	BTEX ⁽¹⁾ DEHP ⁽¹⁾	Analytical results from this well will also identify "background" conditions at the site in the shallow aquifer zone. Additionally, data from this well is used to track the potential migratory trend from MW-25 (Eastern most portion of the subject site)	New well added to monitoring protocol as of Nov 23, 1998 NJDEP Letter.

NOTES

- (1) Parameter analysed every quarter
- (2) Parameter analysed 2nd and 4th quarter ONLY.
- (3) Well sampled 2nd and 4th quarter ONLY.

S: Shallow Hydrogeologic Unit
I: Intermediate Hydrogeologic Unit
D: Deep Hydrogeologic Unit
R: Replacement well

New Well: Indicates a modification to the sampling protocol has been required/recommended

QA/QC PROTOCOL

- One (1) field blank will be collected for each parameter per each event (an additional 8 samples - 4 BTEX and 4 DEHP)
- One (1) trip blank will be collected, alternating parameters per each event (an additional 4 samples - 2 BTEX and 2 DEHP)
- One (1) duplicate sample will be collected from alternating wells and analyzed for alternating parameters (2 BTEX and 2 DEHP)

FIELD ANALYSIS

All quarterly monitoring wells will be field tested for pH, temperature, specific conductivity, dissolved oxygen, and redox potential
Redox potential added to field analysis 1st quarter 2001 to incorporate into RNA initiatives

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJVQWS)			1	700	1,000	40	30					
MW-4	1995	1	ND	26	ND	32	25,000	NO	NO	NO	NO	YES
		2	ND	16	ND	13	46,000	NO	NO	NO	NO	YES
		3	ND	9.7	ND	8.7	NS	NO	NO	NO	NO	--
		4	ND	8.8	ND	11	17,000	NO	NO	NO	NO	YES
	1996	1	ND	24	ND	47	NS	NO	NO	NO	YES	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	6.8	ND	4.3	NS	NO	NO	NO	NO	YES
		4	ND	2.3	ND	ND	11,000	NO	NO	NO	NO	--
	1997	1	ND	3.5	ND	1.8	NS	NO	NO	NO	NO	YES
		2	ND	1.2	ND	4.2	120	NO	NO	NO	NO	YES
		3	ND	2.2	ND	12.6	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	1.0	ND	1.4	710	NO	NO	NO	NO	YES
		3	ND	1.9	ND	1.2	NS	NO	NO	NO	NO	--
		4	ND	9.3	ND	3.3	650	NO	NO	NO	NO	YES
	1999	1	ND	1.1	ND	2.5	NS	NO	NO	NO	NO	--
		2	ND	0.66	ND	ND	3,000	NO	NO	NO	NO	YES
		2 ^{duplicate}	ND	0.43	ND	ND	4,400	NO	NO	NO	NO	YES
		3	ND	3.10	ND	2.9	NS	NO	NO	NO	NO	YES
	2000	4	ND	0.51	ND	ND	4,000	NO	NO	NO	NO	YES
		1	ND	0.54	ND	1.6	NS	NO	NO	NO	NO	--
		2	ND	0.3	ND	ND	480	NO	NO	NO	NO	YES
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	2001	4	ND	ND	ND	0.41	210	NO	NO	NO	NO	YES
		4 ^{duplicate}	ND	ND	ND	0.33	NS	NO	NO	NO	NO	--
		1	ND	1	ND	3.7	NS	NO	NO	NO	NO	--
		2	ND	0.31	ND	0.41	300	NO	NO	NO	NO	YES
DEHP found in lab blank												

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-11(DR) ⁽²⁾⁽³⁾	1999	1	ND	ND	ND	ND	64	NO	NO	NO	NO	YES
		1 duplicate	ND	ND	ND	ND	20	NO	NO	NO	NO	NO
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3 ⁽³⁾	NS	NS	NS	NS	59	--	--	--	--	YES
		3 duplicate	NS	NS	NS	NS	13	--	--	--	--	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	Field ID: MW-11DD	2 ² duplicate	ND	ND	ND	ND	NR	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	3.4	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	0.8	NO	NO	NO	NO	NO
DEHP found in lab blank	Field ID: MW-11DD	1 ¹ duplicate	NS	NS	NS	NS	0.9	--	--	--	--	NO
DEHP found in lab blank		2	NS	NS	NS	NS	1.5	--	--	--	--	NO

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJCWQS)			1	700	1,000	40	30					
MW-14I	1995	1	ND	0.4	ND	1.2	140	NO	NO	NO	NO	YES
		2	ND	ND	ND	ND	1.6	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	2.6	NO	NO	NO	NO	NO
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	2.7	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	1.6	NO	NO	NO	NO	NO
		3	1.2	22.1	ND	176	NS	YES	NO	NO	YES	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	0.34	ND	2	24	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2001	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	3.5	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	2.4	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
DEHP found in lab blank			2 ^{duplicate}	ND	ND	ND	ND	NO	NO	NO	NO	NO
Field ID: MW-14Id												--

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJJGWQS)		1	700		1,000	40	30					
MW-15S	1995	1	ND	ND	ND	ND	2.4	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1996	1	ND	33	ND	83	NS	NO	NO	NO	YES	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	0.21	ND	1.7	ND	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	1.2	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	1.4	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	1.3	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2001	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	0.8	NO	NO	NO	NO	NO
DEHP found in lab blank												

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJVQWS)			1	700	1,000	40	30					
MW-15I	1995	1	ND	ND	ND	ND	250	NO	NO	NO	NO	YES
		2	ND	ND	ND	ND	7.2	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	2.8	NO	NO	NO	NO	NO
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	1.7	NO	NO	NO	NO	NO
		4 ^{duplicate}	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	2.2	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
		2 ^{duplicate}	ND	ND	ND	ND	3.8	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	0.53	11	NO	NO	NO	NO	NO
		4 ^{duplicate}	ND	0.2	ND	0.8	9.8	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	4.8	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2001	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	1.2	NO	NO	NO	NO	NO
DEHP found in lab blank												

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-17S⁽⁴⁾	1995	1	ND	0.6	0.3	1.9	11	NO	NO	NO	NO	NO
Well sampled 2nd and 4th Quarters only		2	0.2	ND	0.18	ND	ND	NO	NO	NO	NO	NO
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	0.63	ND	NO	NO	NO	NO	NO
	1996	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	ND	1.5	NO	NO	NO	NO	NO
	1997	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	1.2	6.1	NO	NO	NO	NO	NO
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	ND	6	NO	NO	NO	NO	NO
	1999	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	ND	40	NO	NO	NO	NO	YES
	2000	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	NS	NS	NS	NS	NS	--	--	--	--	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	2	ND	ND	ND	ND	ND	1.8	NO	NO	NO	NO

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-21 ⁽¹⁾	1999	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	6	NO	NO	NO	NO	NO
		1 ^{duplicate}	NS	NS	NS	NS	ND	--	--	--	--	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	2.7	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	0.9	NO	NO	NO	NO	NO

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)		1	700	1,000	40	30						
MW-22(R)	1995	1	ND	57	ND	260	6,500	NO	NO	NO	YES	YES
		2	ND	311	ND	955	380	NO	NO	NO	YES	YES
		3	ND	171	ND	693	NS	NO	NO	NO	YES	--
		4	ND	123	ND	494	320	NO	NO	NO	YES	YES
	1996	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	359	ND	1,320	NS	NO	NO	NO	YES	--
		4	ND	320	ND	1,330	ND	NO	NO	NO	YES	NO
	1997	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	5,730	ND	32,900	7,500	NO	YES	NO	YES	YES
		3	ND	11,400	348	66,000	NS	NO	YES	NO	YES	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	4,070	348	20,600	NS	NO	YES	NO	YES	--
		2	ND	2,260	ND	11,300	5,800	NO	YES	NO	YES	YES
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3 ^{duplicate}	ND	2,510	ND	11,000	NS	NO	YES	NO	YES	--
	1999	4	ND	1,650	ND	7,230	1,100	NO	YES	NO	YES	YES
		1	ND	18	ND	84	NS	NO	NO	NO	YES	--
		2	ND	1,600	ND	7,600	670	NO	YES	NO	YES	YES
		3	ND	1,200	42	5,200	NS	NO	YES	NO	YES	--
	2000	4	ND	810	ND	3,300	1200	NO	YES	NO	YES	YES
		4 ^{duplicate}	ND	840	ND	3,400	1600	NO	YES	NO	YES	YES
		1	ND	360	ND	1,400	NS	NO	NO	NO	YES	--
		2	ND	820	ND	3,600	92	NO	YES	NO	YES	YES
Dilution Factor 50		3	ND	1,000	ND	4,800	NS	NO	YES	NO	YES	--
Dilution Factor 200		4	ND	1,200	ND	6,200	5100	NO	YES	NO	YES	YES
Dilution Factor 50 and 200 for DEHP and BTEX respectively.	2001	1	ND	1,900	ND	9,000	NS	NO	YES	NO	YES	--
Dilution Factor 50 and 100 for DEHP and BTEX respectively. DEHP found in lab blank		2	ND	910	ND	4,100	2400	NO	YES	NO	YES	YES

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

THROUGH 2ND QUARTER 2001

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)			1	700	1,000	40	30					
MW-25(R)	1995	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	ND	ND	ND	ND	1.6	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	68	NO	NO	NO	NO	YES
	1996	1	NS	NS	NS	NS	NS	--	--	--	--	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	0.34	ND	2.2	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	13.5	ND	89	63	NO	NO	NO	NO	YES
		3	ND	4.1	ND	30.7	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	0.33	ND	1.5	NS	NO	NO	NO	NO	--
		1 ^{duplicate}	ND	0.39	ND	0.94	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	5.3	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	14	ND	NO	NO	NO	NO	NO
		3	ND	0.39	ND	1.4	9.6	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3 ^{duplicate}	NS	NS	NS	NS	ND	--	--	--	--	NO
		4	ND	0.33	ND	1.1	3.4	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	1.9	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	1.4	NO	NO	NO	NO	NO

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS ?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJCWQS)			1	700	1,000	40	30					
Trip Blank	1995	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	1997	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	NS	1.3	NO	NO	NO	--	NO
	1999	1	ND	ND	ND	NS	ND	NO	NO	NO	--	NO
		2	ND	ND	ND	NS	ND	NO	NO	NO	--	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
	2000	1	NS	NS	NS	NS	ND	--	--	--	--	NO
		1	NS	NS	NS	NS	ND	--	--	--	--	NO
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	NS	NS	NS	NS	ND	--	--	--	--	NO
		4	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
DEHP found in lab blank	2001	1	NS	NS	NS	NS	0.6	--	--	--	--	NO
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--

TABLE 5
L.E. CARPENTER - Wharton, New Jersey
Quarterly Groundwater Monitoring Data

MONITORING WELLS	SAMPLING DATE		CHEMICAL ANALYSIS RESULTS					ABOVE NJGWQS?				
	YEAR	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
			ug/l	ug/l	ug/l	ug/l	ug/l					
NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS)		1	700	1,000	40	30						
Field Blank	1995	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	0.73	ND	ND	1.3	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1996	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	NS	NS	NS	NS	NS	--	--	--	--	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	1997	1	ND	ND	0.2	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	NS	NS	NS	NS	NS	--	--	--	--	--
	1998	1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		2	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		3	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		4	ND	ND	ND	ND	1.3	NO	NO	NO	NO	NO
	1999	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
	2000	1	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		1	ND	ND	ND	ND	NS	NO	NO	NO	NO	--
		1	NS	NS	NS	NS	3.2	--	--	--	--	NO
		2	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		3	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
		4	ND	ND	ND	ND	ND	NO	NO	NO	NO	NO
DEHP found in lab blank	2001	1	ND	ND	ND	ND	1.3	NO	NO	NO	NO	NO
DEHP found in lab blank		2	ND	ND	ND	ND	2	NO	NO	NO	NO	NO

LEGEND

ug/L = micrograms per liter

NJGWQS = New Jersey Groundwater Quality Standards

ROD = Record of Decision

NA = Not Applicable

NS = Not Sampled

ND: No Detection

dsgn = Duplicate sample

NR = Not Run

Values in **BOLD FONT** are above BOTH the NJDEP NJGWQS and the ROD Discharge Criteria

-- Used when comparison against known standards does not apply as the well was not sampled (NS) for a specific

Sampling Notes:

(1) MW-21 Quarterly sampling required for both DEHP and BTEX as of NJDEP letter dated Nov 23, 1998

(2) MW-11(R) & MW-11(DR) sampled for both DEHP and BTEX per NJDEP letter dated Nov 23, 1998 (one time sample round- baseline concentration)

(3) MW-11D required to be sampled quarterly per NJDEP letter dated August 17, 1999. Third quarter 1999 sampling was performed

prior to receiving the NJDEP letter. Subsequently, the well was only sampled for DEHP. Starting 4th quarter 1999, MW-11D will be sampled for both

DEHP and BTEX. Based on NJDEP letter dated April 5, 2001, this well will be sampled for DEHP only (starting 2nd qtr 2001).

(4) Well sampled Biannually - 2nd and 4th Quarter Only as of the beginning of 1998

TABLE 6
Water Level Elevations - 2nd QUARTER 2001
L.E. Carpenter, Wharton, New Jersey

WELL LOCATION	WELL TYPE	BASELINE LOCATION		WELL INSTALLATION AND CONSTRUCTION INFORMATION ⁽¹⁾									GEODETIC LOCATION			ELEVATIONS (FT. MSL)			QUARTERLY MEASUREMENT INFORMATION ⁽²⁾						
				MANAGING CONSULTANT	INSTALLATION DATE	TOTAL WELL DEPTH (FT)	WELL DIAMETER (IN)	SCREEN MATERIAL	SLOT SIZE (IN)	TOP OF SCREEN (FT)	BOTTOM OF SCREEN (FT)	SCREENED INTERVAL (FT)	AQUIFER SYSTEM	LATITUDE	LONGITUDE	GROUND	OUTER CASING	INNER WELL	MEAS. DATE	PRODUCT DEPTH	WATER ELEVATION	WATER ELEVATION	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL ELEVATIONS ⁽³⁾	
WP-B10	Area B Well Point	North	228.07	East	174.18	ROY F. WESTON	1993	-	-	-	-	-	-	40° 54' 14.9"	74° 34' 34.7"	630.42	633.12	632.74	02-Apr-01	-	5.94	-	626.80	-	
WP-C1	Area C Well Point	South	26.69	East	182.1	ROY F. WESTON	1993	-	-	-	-	-	-	40° 54' 12.6"	74° 34' 36.1"	632.81	-	633.51	02-Apr-01	-	5.88	-	627.63	-	
WP-C2	Area C Well Point	South	20.92	East	219.91	ROY F. WESTON	1993	-	-	-	-	-	-	40° 54' 12.5"	74° 34' 35.6"	633.02	-	634.46	02-Apr-01	-	6.96	-	627.50	-	
WP-C3	Area C Well Point	South	58.35	East	165.76	ROY F. WESTON	1993	-	-	-	-	-	-	40° 54' 12.4"	74° 34' 36.4"	631.00	-	632.64	02-Apr-01	-	5.09	-	627.55	-	
WP-C4	Area C Well Point	South	2.11	East	183.73	ROY F. WESTON	1993	-	-	-	-	-	-	40° 54' 12.8"	74° 34' 35.9"	632.44	-	633.27	02-Apr-01	-	5.77	-	627.50	-	

FOOTNOTES

- (1) Elevation measured at the top of a 3.33 ft. Staff gauge. Water depth based on a visual observation of the water level on the Staff gauge.
- (2) Corrected water level elevations utilize an average specific gravity of 0.9363 (RMT, Inc. product sampling in October 1999
© MW-1(R); EFR-11 & WP-AB)
- (3) Wells included in the quarterly sampling program. Depth to water recorded before purging
- (4) Wells installed during new RI efforts per NJDEP and EPA request to further delineate MW19/Hot Spot 1 Area
- (5) No boring log or well construction diagram available. Well specific information determined from Weston Geologic Cross Section
- (6) "-" in the Quarterly Measurement Information section of this database indicate that the presence of free product was NOT detected at any measurable thickness and therefore did not generate a product elevation, product thickness nor require water level elevation to be corrected
- (7) "-" in the Well Installation and Construction Information section indicates that well construction logs were not available for review

LEGEND

- S: Shallow Aquifer System
- I: Intermediate Aquifer System
- D: Deep Aquifer System
- R: Replacement Well
- NAS: Not Assessable
- REM: Removed

GENERAL NOTES

- All WP series wells finished elevation is 2 feet above nominal grade. Total depth of well only accounts for subsurface structure
- Wells MW-1A, MW5, MW-7, MW-10, MW-11L, MW-11D, MW-14D, MW-17D, MW-18D, MW-22, MW-24, MW-25, WP-B8, Wp-D1, PZ-6A, PZ-2A(R), PZ-2AS, RW-1 have been abandoned
- Wells MW-11(R), MW11-D(R), MW-1(R), MW-2(R), MW-6(R), MW-22(R), and MW-25(R) are replacement wells

Appendix A

Report Certification

CERTIFICATION

In accordance with N.J.A.C. 7:26C-1.2(b):

"I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement, which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

In accordance with N.J.A.C. 7:26C-1.2(c):

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement, which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Mr. Christopher R. Anderson

PRINTED NAME

Director, Environmental Affairs

TITLE

L.E. Carpenter Company

COMPANY



SIGNATURE

7/17/01

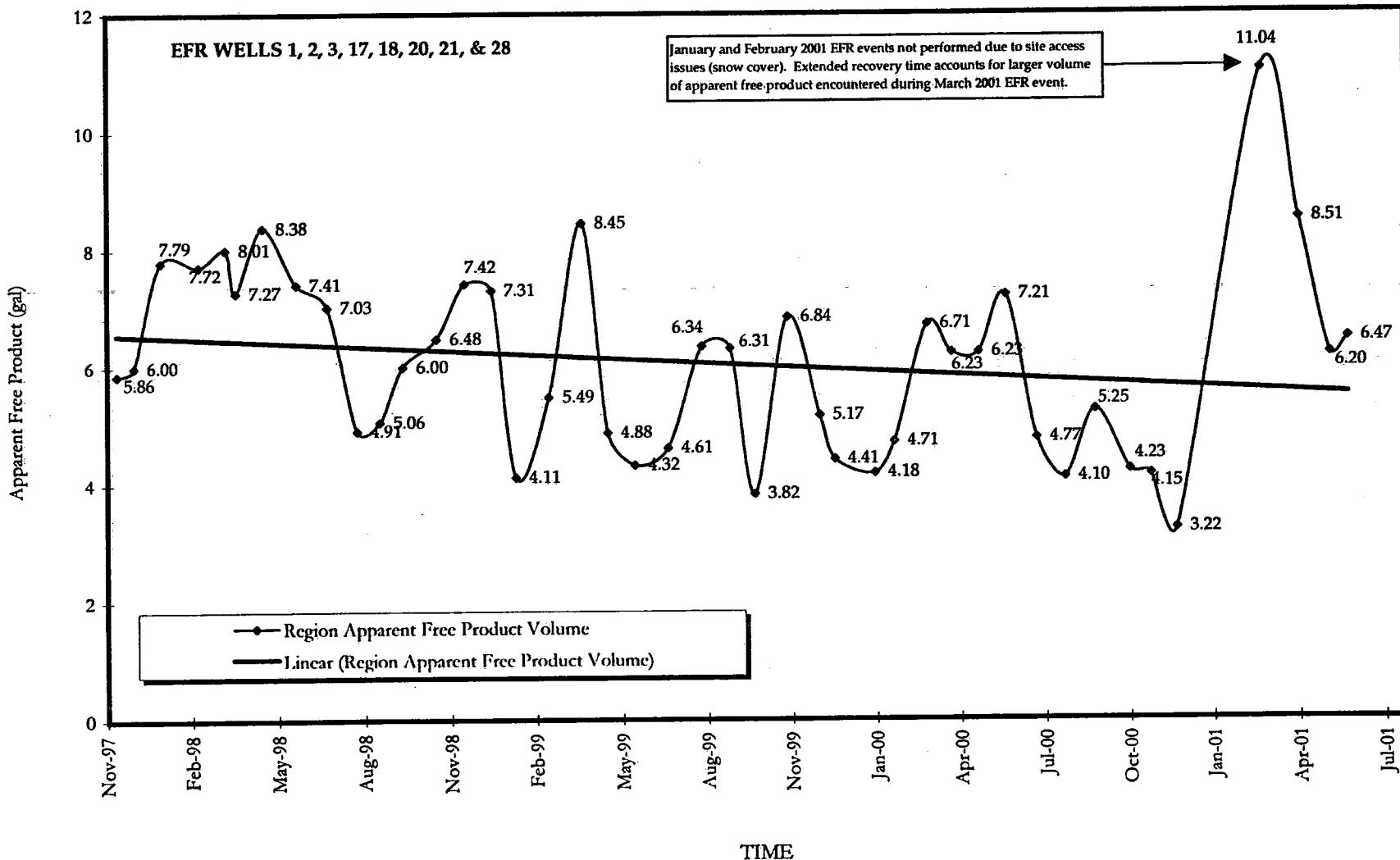
DATE

Appendix B

Apparent Free Product Volume Trend Charts

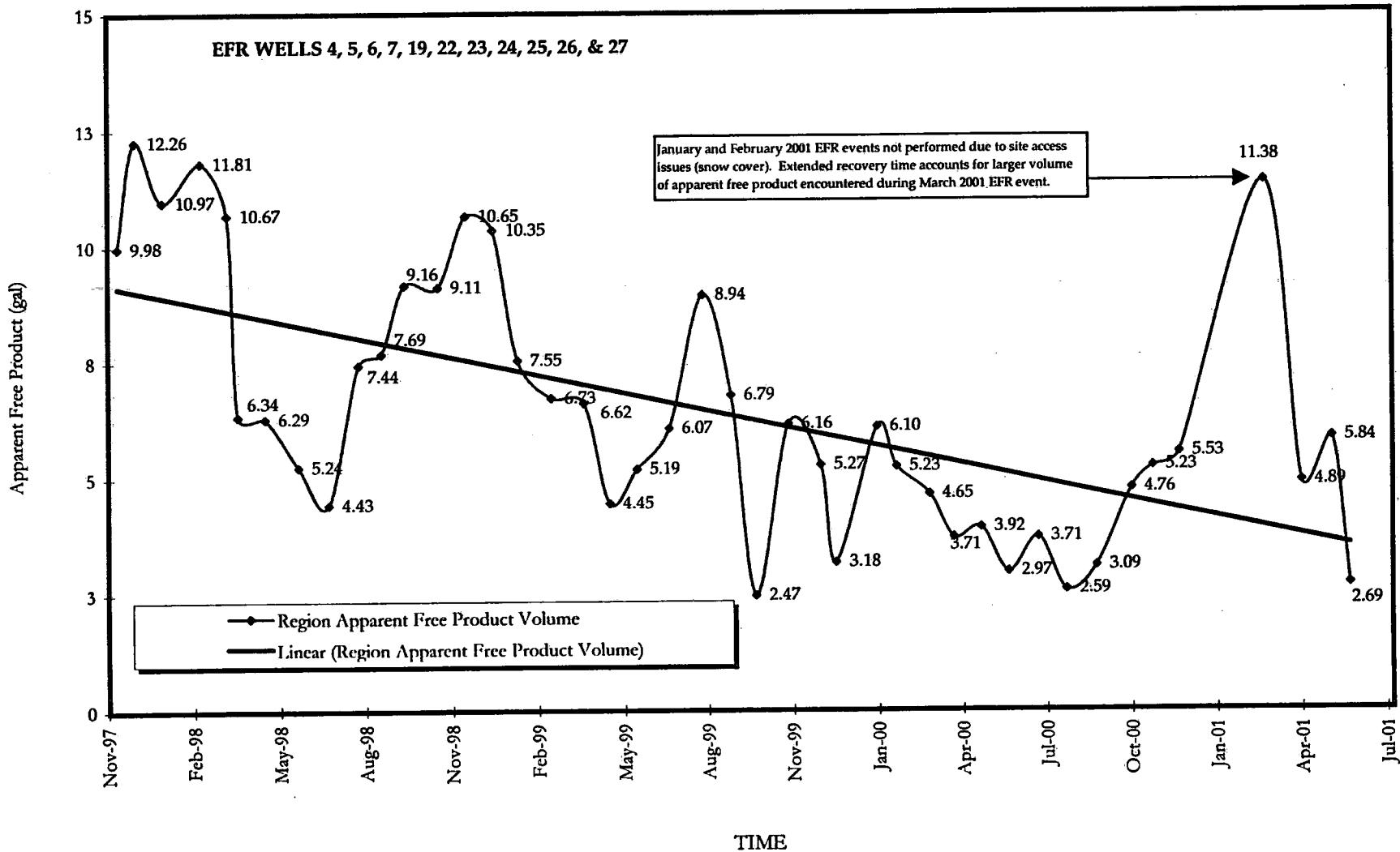
L.E. Carpenter and Company
Western Region of Free Product

Apparent Free Product Volume vs. Time
Through 2nd Quarter 2001



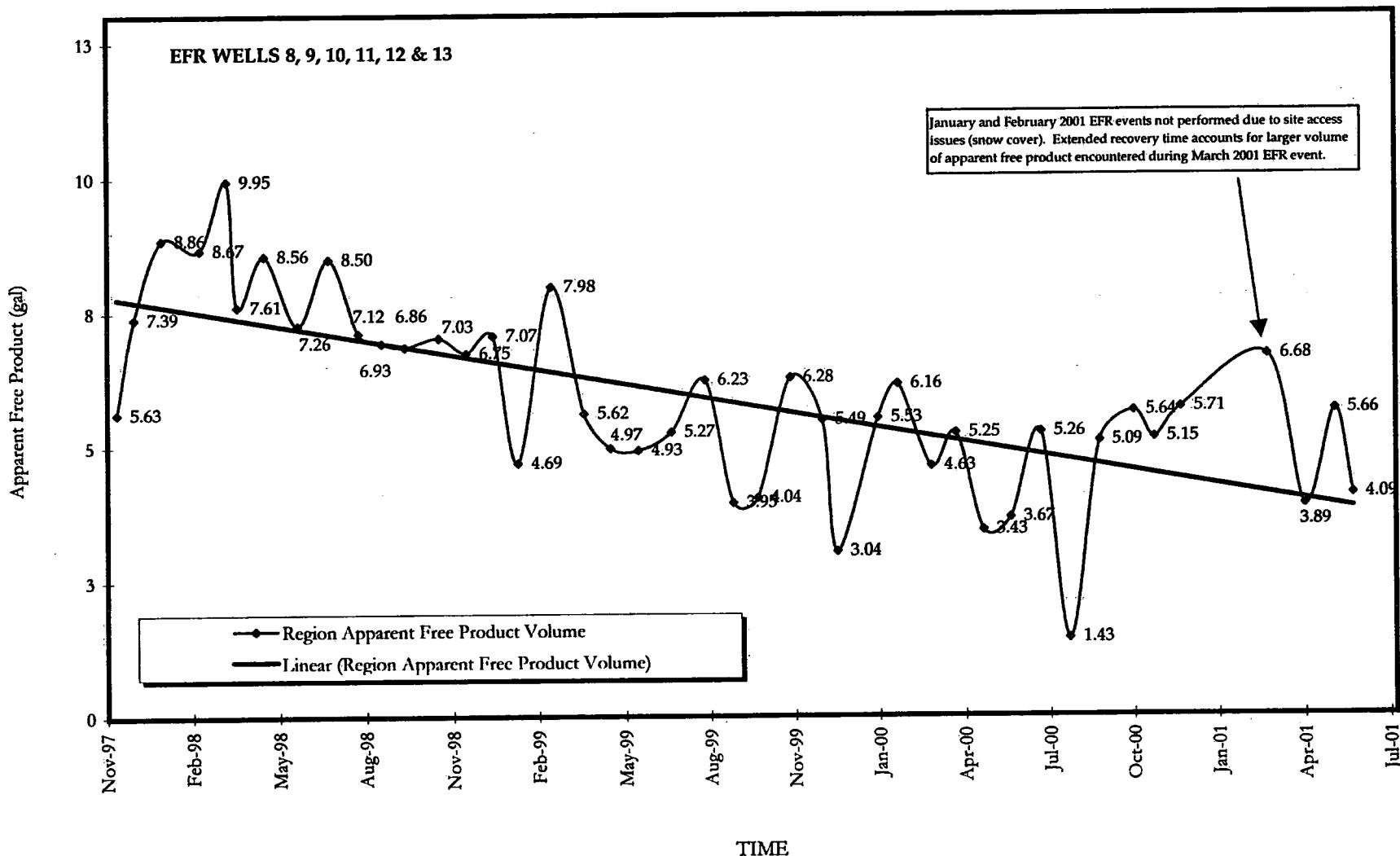
L.E. Carpenter and Company
West-Central Region of Free Product

Apparent Free Product Volume vs. Time
Through 2nd Quarter 2001



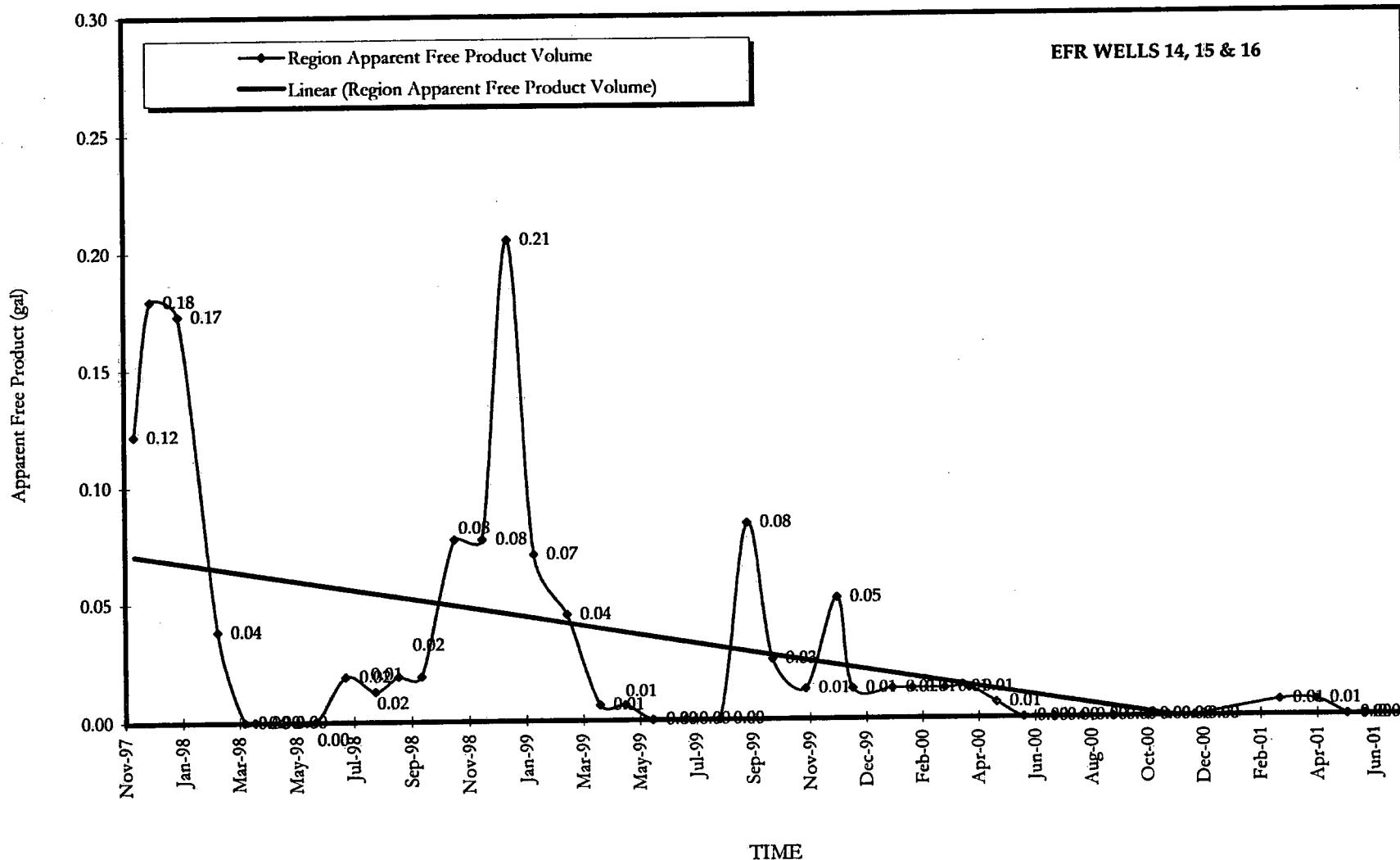
L.E. Carpenter and Company
East-Central Region of Free Product

Apparent Free Product Volume vs. Time
Through 2nd Quarter 2001



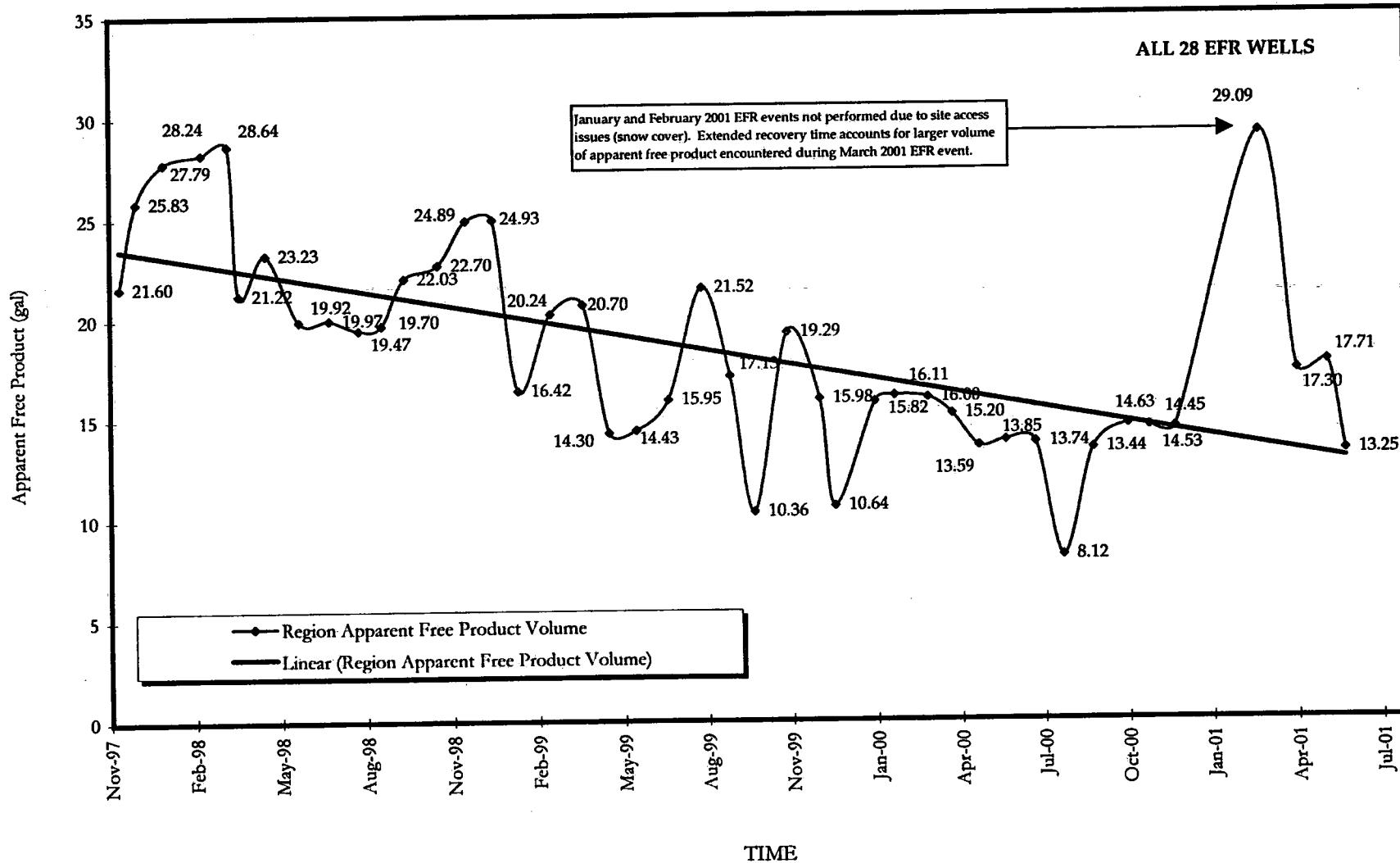
**L.E. Carpenter and Company
Eastern Region of Free Product**

**Apparent Free Product Volume vs. Time
Through 2nd Quarter 2001**



L.E. Carpenter and Company
Total Site Free Product

Apparent Free Product Volume vs. Time
Through 2nd Quarter 2001



Appendix C

Monitoring Well Sampling Data

Monitoring Well Data

Client: RMT

Project: L. E. Carpenter

Job No: J519

Date Sampled: 4/2/01

Analyst: T. Farnath

Well ID	MW15I	MW15S	MW17S	MW11DR	MW4	MW14I	MW22	MW25	MW21
Depth to Water From TOC feet (before purging)	9.34	9.43	6.96	3.40	5.47	1.65	2.15	1.98	2.56
Depth to Water From TOC feet (after purging)	8.34	9.50	7.09	3.54	6.16	1.75	4.41	5.21	2.65
Depth to Water From TOC feet (before sampling)	9.29	9.46	6.99	3.41	5.44	1.66	2.54	2.02	2.59
Depth to Bottom From TOC feet	40.14	19.48	15.00	161.25	18.31	43.32	8.81	9.11	14.68
PID Reading from Well Casing (ppm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
pH before Purge	6.58	4.59	6.30	7.22	5.32	7.14	6.31	6.74	6.86
Temp. before Purge (°C)	7.5	6.9	3.3	6.0	5.1	8.0	7.0	6.9	9.3
Diss. Oxygen before Purge (ppm)	1.61	10.95	11.86	4.89	1.48	3.67	1.06	1.07	2.98
Cond. before Purge (umhos/cm)	295	186	235	301	384	375	458	467	620
Redox Potential before Purge (mV)	-115	128	69	42	-62	28	-156	-115	-49
Water Volume in Well (gal.)	5.2	6.6	5.3	26.8	2.2	7.1	1.1	1.2	8.0
Purge Method	peristaltic pump								
Purge Start Time	9:34	9:30	10:21	10:53	11:30	12:23	12:25	12:31	13:23
Purge End Time	9:56	9:53	10:37	12:01	11:37	12:42	12:28	12:35	13:45
Purge Rate (gpm)	0.72	0.87	1.00	1.19	1.00	1.10	1.00	1.00	1.09
Volume Purged (gal.)	16	20	16	81	7	21	3	4	24
pH after Purge	6.34	5.58	5.52	7.50	5.39	7.68	6.55	6.66	6.48
Temp. after Purge (°C)	7.8	8.0	3.0	10.4	6.2	11.1	6.9	6.5	10.2
Diss. Oxygen after Purge (ppm)	1.84	4.23	9.21	3.77	1.50	2.99	0.76	2.46	3.98
Cond. after Purge (umhos/cm)	441	299	291	320	371	399	461	449	624
Redox Potential after Purge (mV)	-114	94	107	-40	-110	-77	-159	-66	-9
pH at Sample	6.63	6.30	5.60	8.22	6.17	7.79	6.49	6.75	6.77
Temp. at Sample (°C)	7.9	6.9	2.6	7.5	5.4	9.3	6.9	7.3	9.8
Diss. Oxygen at Sample (ppm)	3.12	10.86	10.39	4.96	2.27	4.09	1.49	2.59	3.48
Cond. at Sample (umhos/cm)	397	214	269	300	376	384	440	430	702
Redox Potential at Sample (mV)	-107	53	106	25	-100	-44	-128	-49	-6
Sampling Method	teflon bailer								
Time of Sampling	10:12	10:04	10:43	12:09	11:47	12:50	13:06	13:15	13:50

Appendix D

MW-22R & MW-25R Groundwater Concentration Trend Analysis

MW-22R
BTEX and DEHP Concentration(s) Trend Analysis



Sampling Date(s)	ANALYTE				
	Benzene (ug/L)	Ethylbenzene (ug/L)	Toluene (ug/L)	Total Xylenes (ug/L)	DEHP (ug/L)
21-Feb-95	ND	57	ND	260	6500
13-Jun-95	ND	311	ND	955	380
13-Sep-95	ND	171	ND	693	NS
7-Dec-95	ND	123	ND	494	320
17-Sep-96	ND	359	ND	1320	NS
12-Dec-96	ND	320	ND	1330	ND
14-Aug-97	ND	5,730	ND	32,900	7,500
3-Oct-97	ND	11,400	348	66,000	NS
12-Mar-98	ND	4,070	348	20,600	NS
26-Aug-98	ND	2,260	ND	11,300	5,800
28-Aug-98	ND	1,880	ND	10,300	NS
18-Dec-98	ND	1,650	ND	7,230	1,100
21-Jan-99	ND	18	ND	84	NS
15-Apr-99	ND	1,600	ND	7,600	670
22-Jul-99	ND	1,200	ND	5,200	NS
25-Oct-99	ND	810	ND	3,300	1,200
17-Jan-00	ND	360	ND	1,400	NS
13-Apr-00	ND	820	ND	3,600	92
31-Jul-00	ND	1,000	ND	4,800	NS
30-Oct-00	ND	1,200	ND	6,200	5,100
27-Feb-01	ND	1,900	ND	9,000	NS
2-Apr-01	ND	910	ND	4,100	2,400
NJGWQS (ug/l)	1	700	1000	40	30
ROD Discharge Criteria (ug/l)	1	350	500	20	30

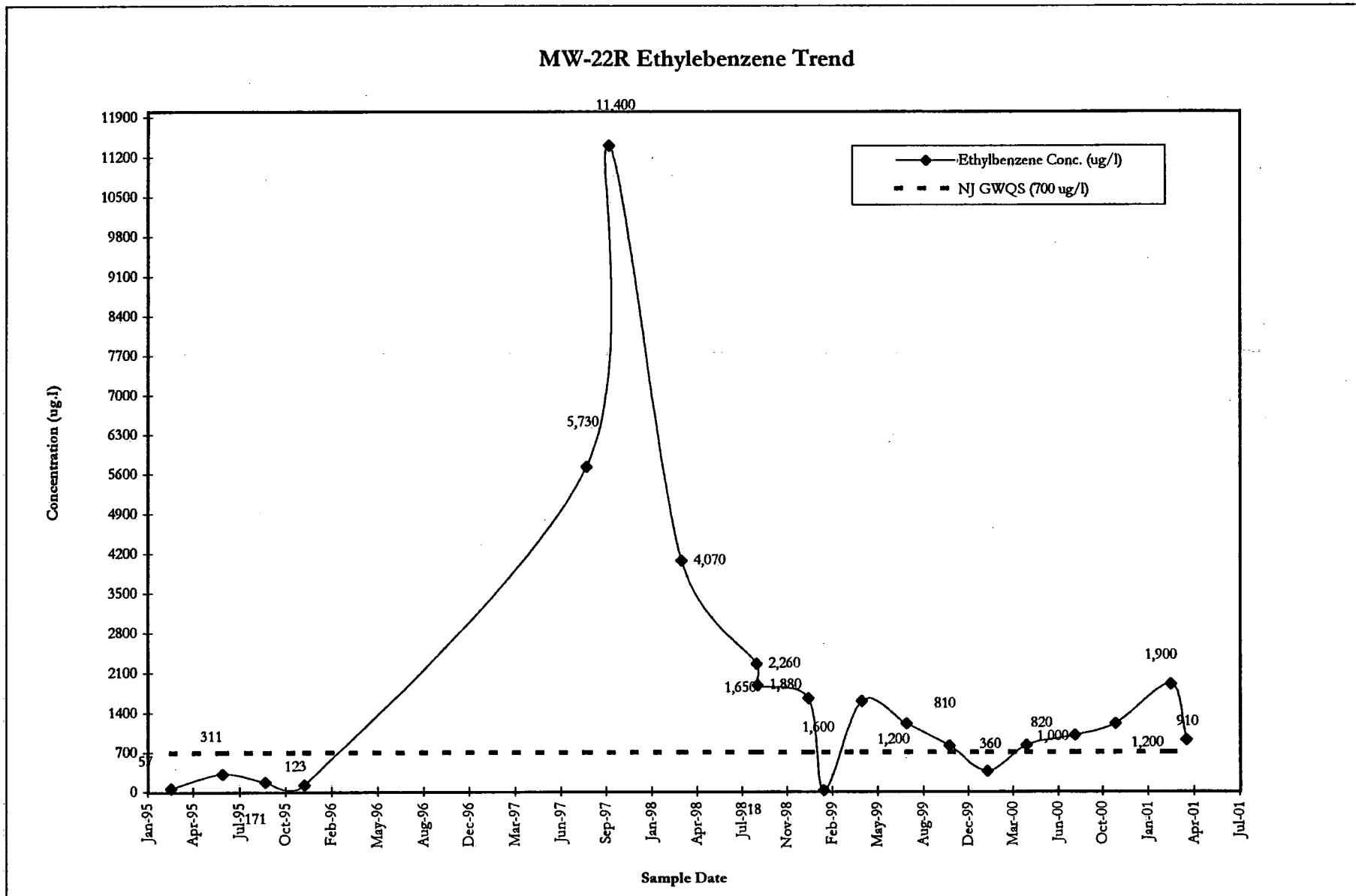
NOTES

Concentrations in bold exceed both the ROD discharge criteria and NJDEP GWQS

ND = Not detected above method detection limits

NS = Not Sampled

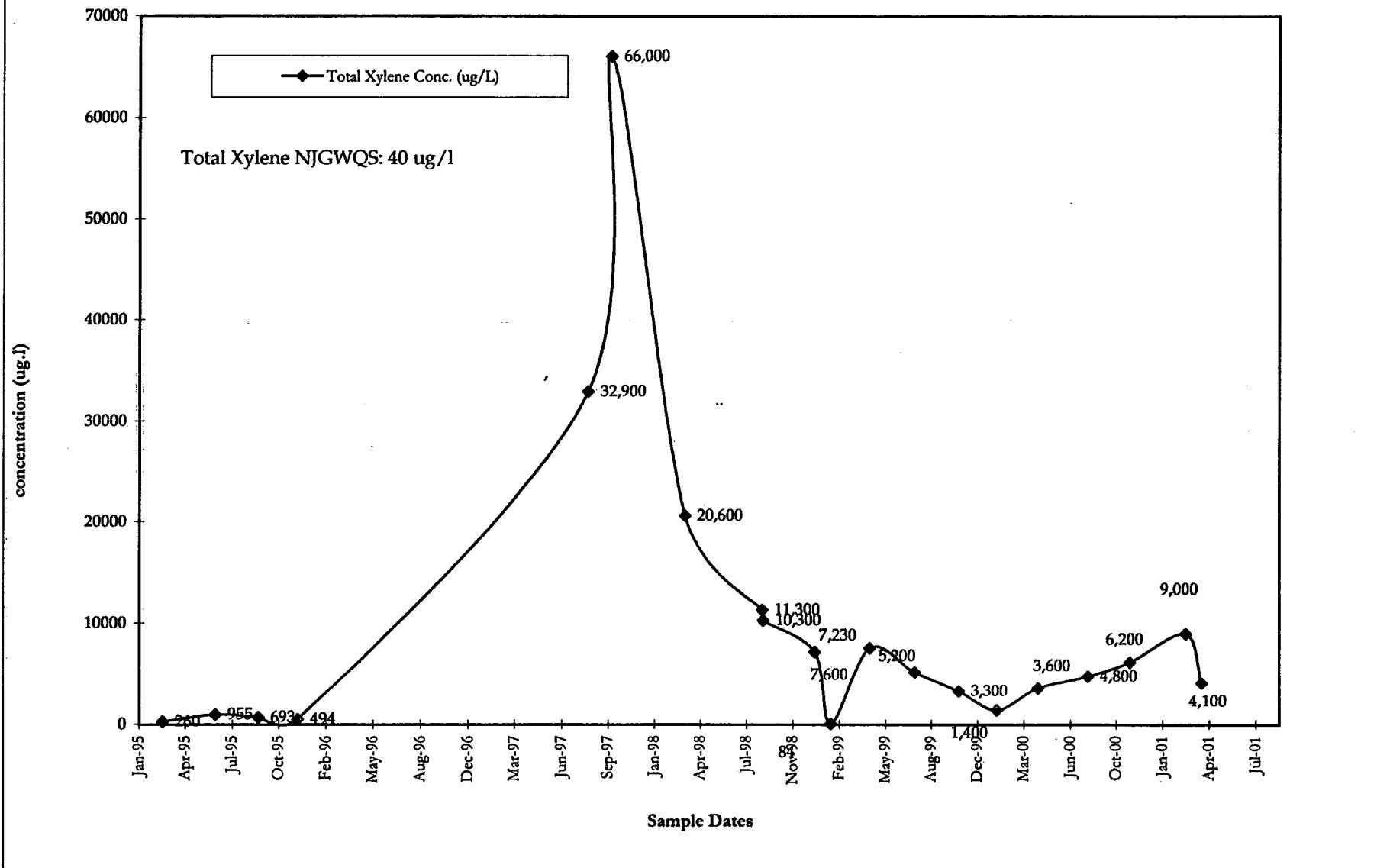
MW-22R
CONTAMINANT OF CONCERN
Concentration vs. Time



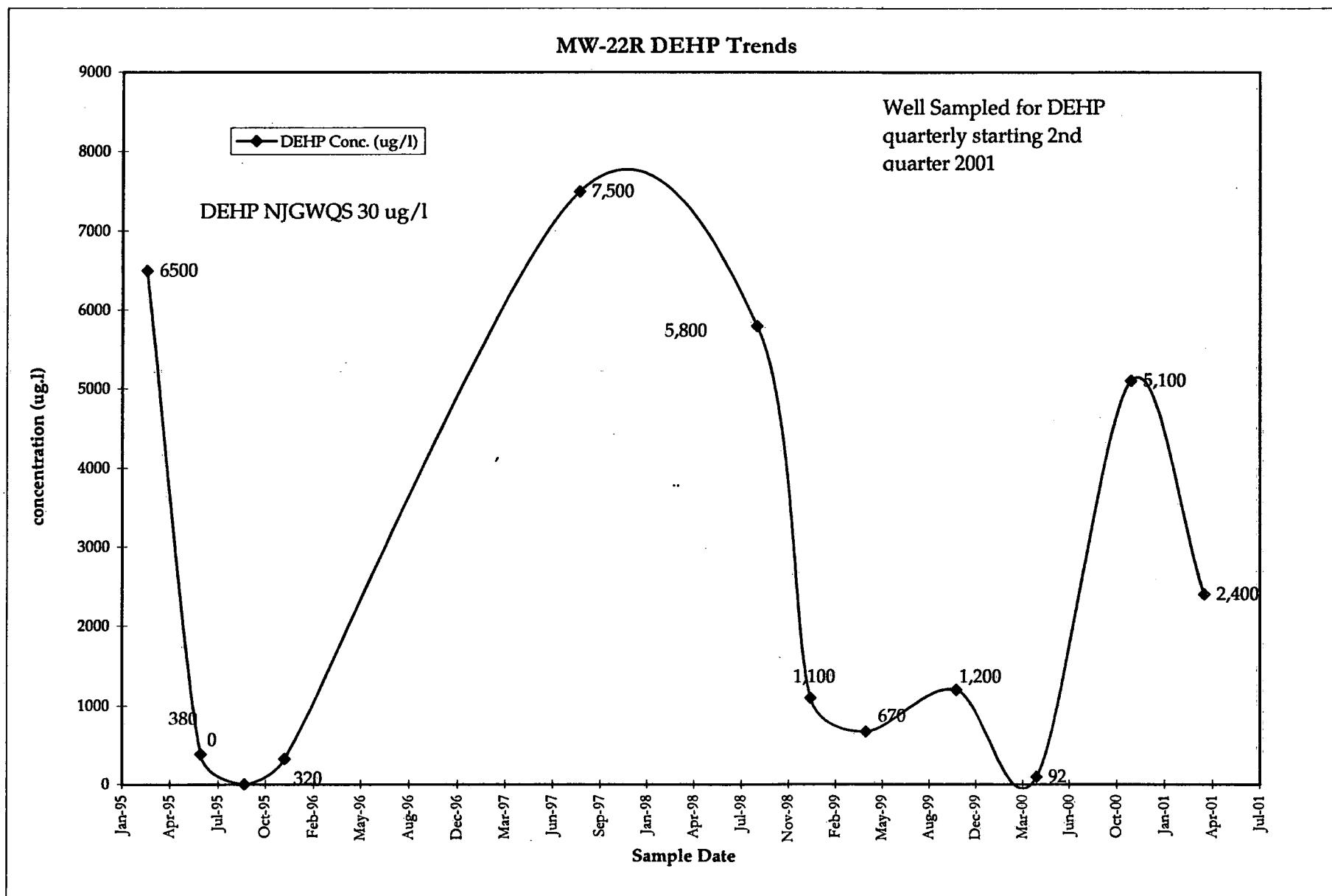
CONTAMINANTS OF CONCERN

Concentration vs. Time

MW-22R Total Xylene Trend



MW-22R
Contaminants of Concern
Concentration vs. Time



MW-25R
BTEX and DEHP Concentration(s) Trend Analysis

Sampling Date(s)	ANALYTE				
	Benzene (ug/L)	Ethylbenzene (ug/L)	Toluene (ug/L)	Total Xylenes (ug/L)	DEHP (ug/L)
1-Apr-95	ND	ND	ND	ND	1.6
1-Jul-95	ND	ND	ND	ND	NS
7-Dec-95	ND	ND	ND	ND	68
17-Sep-96	ND	0.34	ND	2.2	NS
12-Dec-96	ND	ND	ND	ND	ND
1-Jan-97	ND	ND	ND	ND	NS
1-Apr-97	ND	13.5	ND	89	63
1-Jul-97	ND	4.1	ND	30.7	NS
12-Mar-98	ND	0.33	ND	1.5	NS
1-Apr-98	ND	ND	ND	ND	5.3
28-Aug-98	ND	ND	ND	ND	NS
18-Dec-98	ND	ND	ND	ND	1.9
21-Jan-99	ND	ND	ND	ND	ND
15-Apr-99	ND	ND	ND	14	ND
22-Jul-99	ND	0.39	ND	1.4	9.6
25-Oct-99	ND	ND	ND	ND	ND
17-Jan-00	ND	ND	ND	ND	ND
13-Apr-00	ND	ND	ND	ND	ND
31-Jul-00	ND	ND	ND	ND	ND
30-Oct-00	ND	0.33	ND	1.1	3.4
27-Feb-01	ND	ND	ND	ND	1.9
2-Apr-01	ND	ND	ND	ND	1.4
NJGWQS (ug/l)	NA	700	1000	40	30
ROD Discharge Criteria (ug/l)	NA	350	500	20	30

NOTES

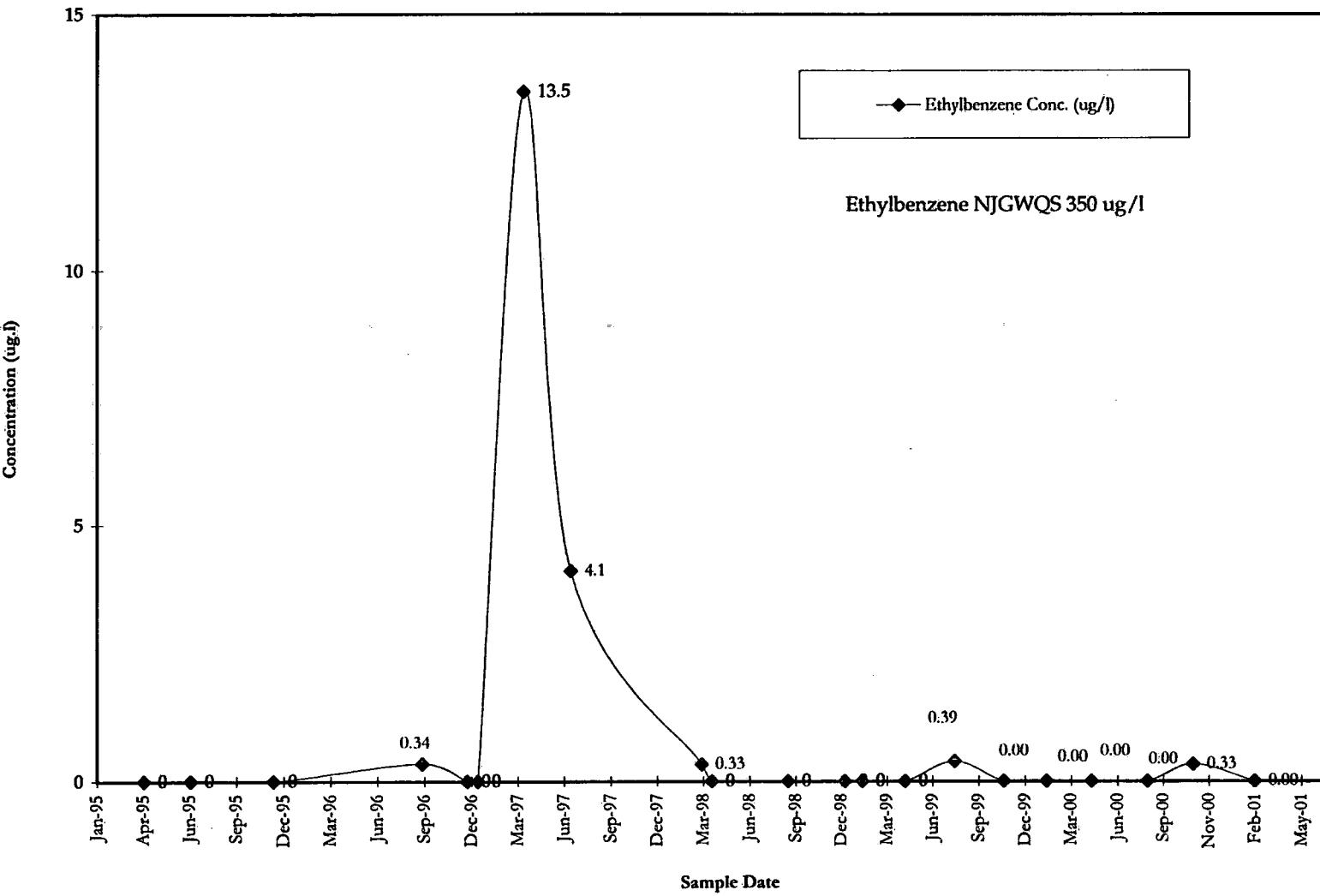
Concentrations in bold exceed both the ROD discharge criteria and NJDEP GWQS

ND = Not detected above method detection limits

NS = Not Sampled

MW-25R
CONTAMINANT OF CONCERN
Concentration vs. Time

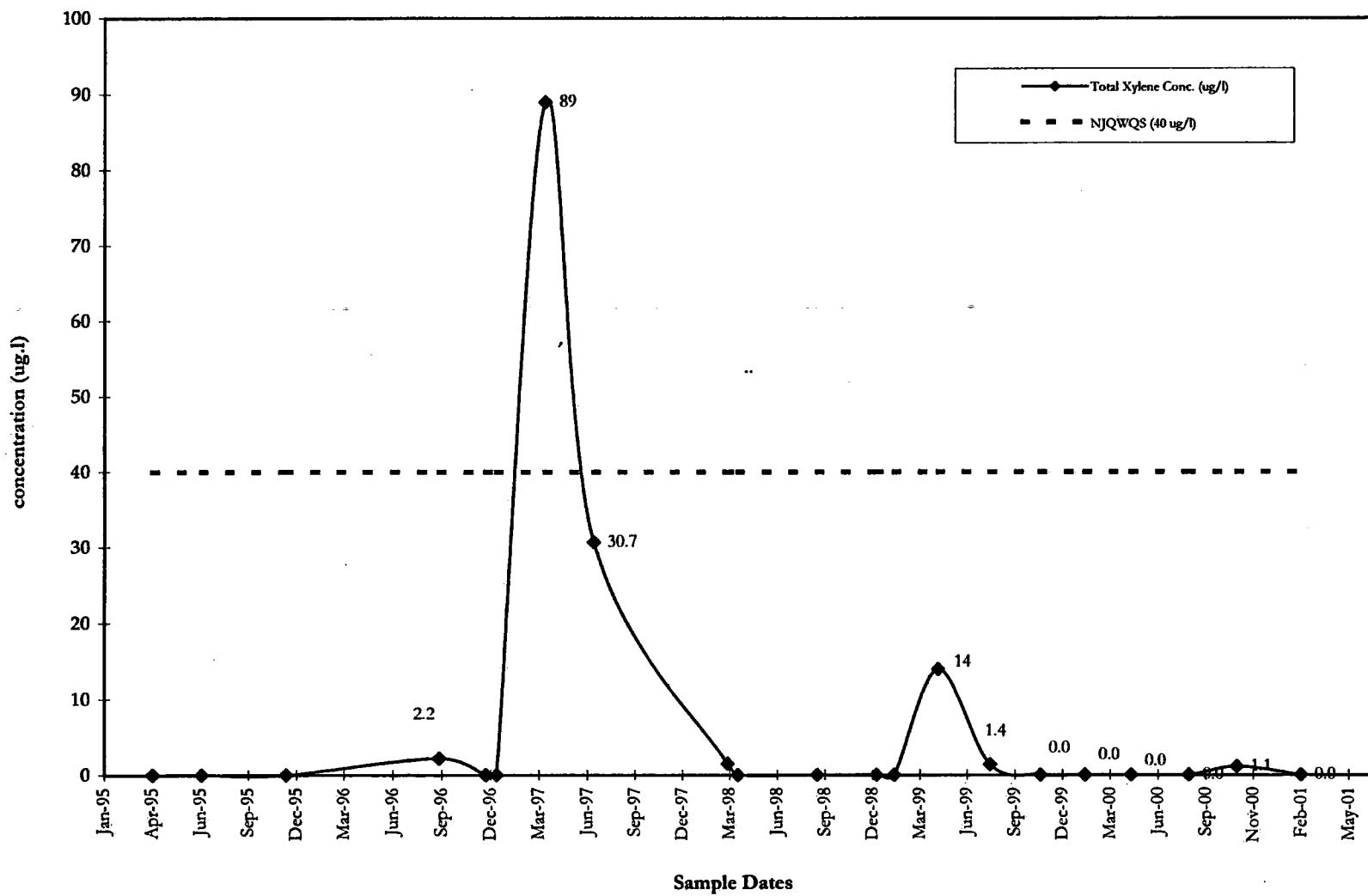
MW-25R Ethylebenzene Trend



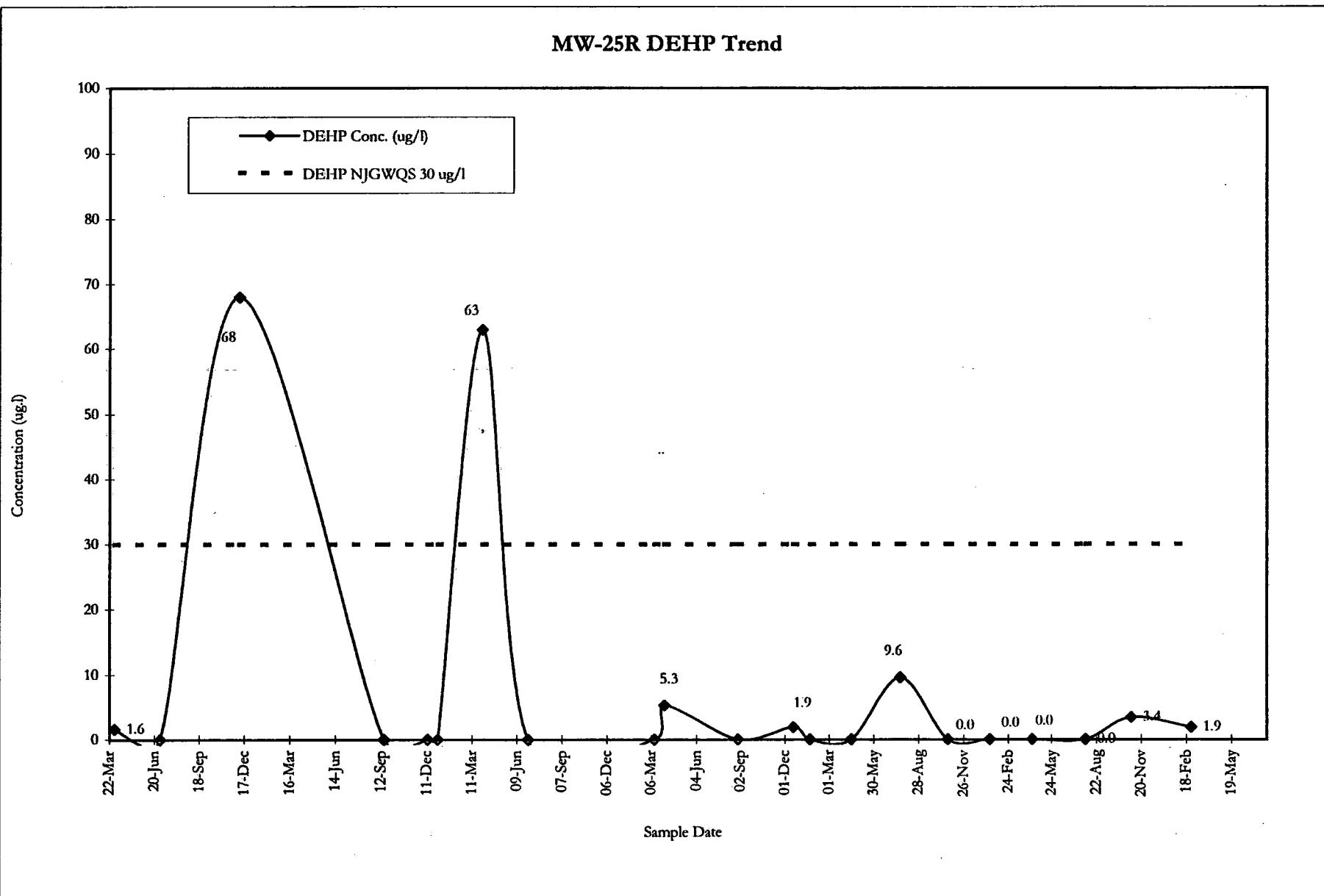
CONTAMINANTS OF CONCERN

Concentration vs. Time

MW-25R Total Xylene Trend



MW-25R
CONTAMINANT OF CONCERN
Concentration vs. Time



Appendix E
Laboratory Report
Severn Trent Services, STL Edison

S E V E R N
T R E N T
S E R V I C E S

STL Edison
777 New Durham Road
Edison, NJ 08817

April 19, 2001

Tel: 732-549-3900
Fax: 732-549-3679
www.stl-inc.com

Residuals Management Technologies, Inc.
222 South Riverside Plaza
Suite 280
Chicago, IL 60606

Attention: Mr. Nick Clevett

Re: J519 - L.E. Carpenter

Dear Mr Clevett:

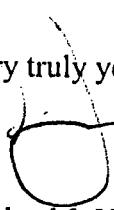
Enclosed are the results you requested for the following sample(s) received at our laboratory on April 02, 2001:

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
266473	MW-15I	BTEX (GC) bis-2-Ethylhexylphthalate
266474	MW-15S	BTEX (GC) bis-2-Ethylhexylphthalate
266475	MW-17S	BTEX (GC) bis-2-Ethylhexylphthalate
266476	MW-11DR	bis-2-Ethylhexylphthalate
266477	MW-4	BTEX (GC) bis-2-Ethylhexylphthalate
266478	MW-14I	BTEX (GC) bis-2-Ethylhexylphthalate

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
266479	MW-22	BTEX (GC) bis-2-Ethylhexylphthalate
266480	MW-25	BTEX (GC) bis-2-Ethylhexylphthalate
266481	MW-21	BTEX (GC) bis-2-Ethylhexylphthalate
266482	MW-141d	BTEX (GC)
266483	Trip_Blank	BTEX (GC)
266484	Field_Blank	BTEX (GC) bis-2-Ethylhexylphthalate

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Paul Simms, at (732) 549-3900.

Very truly yours,



Michael J. Urban
Laboratory Manager

TABLE OF CONTENTS

	<u>Section</u>	<u>Page</u>
Analytical Results Summary	1	1
General Information	2	
Chain of Custody		22
Laboratory Chronicles		27
Methodology Review		29
Data Reporting Qualifiers		32
Non-Conformance Summary		33
GC/MS Forms and Data (Semivolatiles)	3	
Results Summary and Chromatograms		35
Tuning Results Summary		86
Method Blank Results Summary		101
Calibration Summary		110
Surrogate Compound Recovery Summary		122
Spike Recovery Summary		123
Internal Standard Area Summary		125
GC/PID Forms and Data	4	
Results Summary and Chromatograms		131
Method Blank Results Summary		153
Standards Summary		159
Surrogate Compound Recovery Summary		174
Spike Recovery Summary		175

Client ID: MW-15I
Site: L.E. Carpenter

Lab Sample No: 266473
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7728.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	1.2B	0.4

Client ID: MW-15I
Site: L.E. Carpenter

Lab Sample No: 266473
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/06/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0353.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

Client ID: MW-15S
Site: L.E. Carpenter

Lab Sample No: 266474
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7729.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 0.8B 0.4

Client ID: MW-15S
Site: L.E. Carpenter

Lab Sample No: 266474
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/06/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0354.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter

Analytical Result <u>Units: ug/l</u>	Method Detection	
	Limit <u>Units: ug/l</u>	
ND	0.28	
ND	0.26	
ND	0.26	
ND	0.25	

Benzene
Toluene
Ethylbenzene
Xylene (Total)

Client ID: MW-17S
Site: L.E. Carpenter

Lab Sample No: 266475
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7730.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	1.8B	0.4

Client ID: MW-17S
Site: L.E. Carpenter

Lab Sample No: 266475
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/06/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0355.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

Client ID: MW-11DR
Site: L.E. Carpenter

Lab Sample No: 266476
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7731.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 1.5B 0.4

Client ID: MW-4
Site: L.E. Carpenter

Lab Sample No: 266477
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/16/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7756.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	300 B	0.9

Client ID: MW-4
Site: L.E. Carpenter

Lab Sample No: 266477
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0357.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	0.31	0.26
Xylene (Total)	0.41	0.25

Client ID: MW-14I
Site: L.E. Carpenter

Lab Sample No: 266478
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7733.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	3.5B	0.4

Client ID: MW-14I
Site: L.E. Carpenter

Lab Sample No: 266478
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0358.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

Client ID: MW-22
Site: L.E. Carpenter

Lab Sample No: 266479
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/16/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7757.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	2400 B	8.8

Client ID: MW-22
Site: L.E. Carpenter

Lab Sample No: 266479
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0362.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 100.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter

	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	28
Toluene	ND	26
Ethylbenzene	910	26
Xylene (Total)	4100	25

Client ID: MW-25
Site: L.E. Carpenter

Lab Sample No: 266480
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7735.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	1.4B	0.4

Client ID: MW-25
Site: L.E. Carpenter

Lab Sample No: 266480
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0365.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

Client ID: MW-21
Site: L.E. Carpenter

Lab Sample No: 266481
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7736.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 0.9B 0.4

Client ID: MW-21
Site: L.E. Carpenter.

Lab Sample No: 266481
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0366.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter

Benzene
Toluene
Ethylbenzene
Xylene (Total)

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

Client ID: MW-141d
Site: L.E. Carpenter

Lab Sample No: 266482
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0367.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

Client ID: Trip_Blank
Site: L.E. Carpenter

Lab Sample No: 266483
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0368.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

Client ID: Field_Blank
Site: L.E. Carpenter

Lab Sample No: 266484
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7737.d

Matrix: WATER
Level: LOW
Sample Volume: 970 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 2.0B 0.5

Client ID: **Field_Blank**
Site: L.E. Carpenter

Lab Sample No: **266484**
Lab Job No: **J519**

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0369.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25

CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 1 OF 2

Name (for report and invoice) <i>Nick Clevert</i>	Samplers Name (Printed) <i>Ted Farneth, Rick Terpgaard</i>		Site/Project Identification <i>L.E. Carpenter</i>							
Company <i>RMT</i>	P.O. #		State (Location of site): NJ: <input checked="" type="checkbox"/> NY: <input type="checkbox"/> Other:							
Regulatory Program:										
Address <i>222 South Riverside Plaza</i>	Analysis Turnaround Time		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)							
City <i>Chicago, IL</i>	State <i>60606</i>	Standard <input checked="" type="checkbox"/>	<i>G/EX</i>	<i>DEHP</i>						
		Rush Charges Authorized For:								
Phone <i>312-575-0200</i>	Fax <i>312-575-0300</i>	2 Week <input type="checkbox"/>								
		1 Week <input type="checkbox"/>								
		Other <input type="checkbox"/>								
Sample Identification		Date	Time	Matrix	No. of Cont.	<i>G/EX</i>	<i>DEHP</i>	LAB USE ONLY		
MW 151		4/2/01	10:12	AQ	4	X	X	<i>80108C</i>		
MW 155			10:04		4	X	X	<i>J519</i>		
MW 175			10:43		4	X		<i>266473</i>		
MW 11 DR			12:09		4	X		<i>266474</i>		
MW 4			11:47		4	X	X	<i>266475</i>		
MW 141			12:50		4	X	X	<i>266476</i>		
MW 22			13:06		4	X	X	<i>266477</i>		
MW 25			13:15		4	X	X	<i>266478</i>		
MW 21			13:50		4	X	X	<i>266479</i>		
MW 141d		↓	—	↓	4	X	X	<i>266480</i>		
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH					Soil:					
6 = Other _____, 7 = Other _____					Water:	2	1			

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by 1) <i>JL</i>	Company STL	Date / Time 4/2/01 1515	Received by 1)	Company
Relinquished by 2)	Company	Date / Time 1	Received by 2)	Company <i>STL</i>
Relinquished by 3)	Company	Date / Time 1	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 1	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

STL EDISON

777 New Durham Road
 Edison, New Jersey 08817
 Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUESTPAGE 2 OF 2

Name (for report and invoice) <i>Nick Clevert</i>	Samplers Name (Printed) <i>Ted Farwith, Rich Teague</i>	Site/Project Identification <i>L.E. Carpenter</i>															
Company <i>RMT</i>	P.O. #	State (Location of site): NJ: <input checked="" type="checkbox"/> NY: <input type="checkbox"/> Other:															
Address <i>222 South Riverside Plaza Suite 320</i>	Regulatory Program:																
City <i>Chicago, IL 60606</i>	Analysis Turnaround Time Standard <input checked="" type="checkbox"/>	ANALYSIS REQUESTED (ENTER X BELOW TO INDICATE REQUEST)															
Phone <i>312-575-0200</i>	Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>	<i>B-TEX</i>	<i>DEHP</i>														
Fax <i>312-575-0300</i>																	
Sample Identification	Date	Time	Matrix	No. of Cont.													Sample Numbers
Trip Blank	4/2/01	545	AQ	2	X										266483		
Field Blank	4/2/01	1300	AQ	3	X	X									266484		
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					Soil:												
					Water:	2	1										

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by 1) <i>JH</i>	Company <i>STL</i>	Date / Time <i>4/2/01 11515</i>	Received by 1)	Company
Relinquished by 2)	Company	Date / Time <i>1</i>	Received by 2) <i>WF</i>	Company <i>STL</i>
Relinquished by 3)	Company	Date / Time <i>1</i>	Received by 3)	Company
Relinquished by 4)	Company	Date / Time <i>1</i>	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Monitoring Well Data

Client: RMT
Job No: J519
Project: L. E. Carpenter
Date Sampled: 4/2/01
Analyst: T. Farnath

Well ID	MW15I	MW15S	MW17S	MW11DR	MW4	MW14I	MW22	MW25	MW21
Depth to Water From TOC feet (before purging)	9.34	9.43	6.96	3.40	5.47	1.65	2.15	1.98	2.56
Depth to Water From TOC feet (after purging)	8.34	9.50	7.09	3.54	6.16	1.75	4.41	5.21	2.65
Depth to Water From TOC feet (before sampling)	9.29	9.46	6.99	3.41	5.44	1.66	2.54	2.02	2.59
Depth to Bottom From TOC feet	40.14	19.48	15.00	161.25	18.31	43.32	8.81	9.11	14.68
PID Reading from Well Casing (ppm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
pH before Purge	6.58	4.59	6.30	7.22	5.32	7.14	6.31	6.74	6.86
Temp. before Purge (°C)	7.5	6.9	3.3	6.0	5.1	8.0	7.0	6.9	9.3
Diss. Oxygen before Purge (ppm)	1.61	10.95	11.86	4.89	1.48	3.67	1.06	1.07	2.98
Cond. before Purge (umhos/cm)	295	186	235	301	384	375	458	467	620
Redox Potential before Purge (mV)	-115	128	69	42	-62	28	-156	-115	-49
Water Volume in Well (gal.)	5.2	6.6	5.3	26.8	2.2	7.1	1.1	1.2	8.0
Purge Method	peristaltic pump								
Purge Start Time	9:34	9:30	10:21	10:53	11:30	12:23	12:25	12:31	13:23
Purge End Time	9:56	9:53	10:37	12:01	11:37	12:42	12:28	12:35	13:45
Purge Rate (gpm)	0.72	0.87	1.00	1.19	1.00	1.10	1.00	1.00	1.09
Volume Purged (gal.)	16	20	16	81	7	21	3	4	24
pH after Purge	6.34	5.58	5.52	7.50	5.39	7.63	6.55	6.66	6.48
Temp. after Purge (°C)	7.8	8.0	3.0	10.4	6.2	11.1	6.9	6.5	10.2
Diss. Oxygen after Purge (ppm)	1.84	4.23	9.21	3.77	1.50	2.99	0.76	2.46	3.98
Cond. after Purge (umhos/cm)	441	299	291	320	371	399	461	449	624
Redox Potential after Purge (mV)	-114	94	107	-40	-110	-77	-159	-66	-9
pH at Sample	6.63	6.30	5.60	8.22	6.17	7.79	6.49	6.75	6.77
Temp. at Sample (°C)	7.9	6.9	2.6	7.5	5.4	9.3	6.9	7.3	9.8
Diss. Oxygen at Sample (ppm)	3.12	10.86	10.39	4.96	2.27	4.09	1.49	2.59	3.48
Cond. at Sample (umhos/cm)	397	214	269	-	300	376	384	440	430
Redox Potential at Sample (mV)	-107	53	106	25	-100	-44	-128	-49	-6
Sampling Method	teflon bailer								
Time of Sampling	10:12	10:04	10:43	12:09	11:47	12:50	13:06	13:15	13:50

Water Levels / L.E. Carpenter Site Date: 4/2/01

Well ID	Depth to Product (ft)	Depth to Water (ft)	Well ID	Depth to Product (ft)	Depth to Water (ft)	
MW-1 (R)	8.06	9.05	MW-22 (R)	2.15	SG-D1	1.68
MW-2 (R)		5.44	MW-23	2.57	SG-D2	1.20
MW-3	5.81	6.17	MW-25 (R)	1.98	SG-D3	1.68
MW-4		5.47	MW-26	6.47	SG-R1	2.18
MW-6 (R)		4.92	RW-1	9.84	SG-R2	2.10
MW-8		2.28	RW-2	5.02	SG-R3	1.26
MW-9		2.69	RW-3	5.66	EFR-1	*
MW-11S	6.11	11.84	CW-1	5.95	EFR-2	*
MW-11IR		6.24	CW-3	5.02	EFR-3	*
MW-11DR		3.40	GEI-11	3.72	EFR-4	*
MW-12R		6.73	GEI-2S	9.49	EFR-5	*
MW-13S		4.36	GEI-21	9.43	EFR-6	*
MW-13(R)		4.02	GEI-31	11.53	EFR-7	*
MW-13I		3.95	WP-A1	8.06	EFR-8	*
MW-14S		2.42	WP-A2	N/A	EFR-9	*
MW-14I		1.65	WP-A3	7.80	EFR-10	*
MW-15S		9.43	WP-A4	9.25	EFR-11	*
MW-15I		9.34	WP-A5	9.85	EFR-12	*
MW-16S		5.92	WP-A6	9.84	EFR-13	*
MW-16I		7.03	WP-A7	7.57	EFR-14	*
MW-17S		6.96	WP-A8	10.27	EFR-15	*
MW-18S		4.74	WP-A9	11.37	EFR-16	*
MW-18I		4.04	WP-B1	5.05	EFR-17	*
MW-19		10.55	WP-B2	5.02	EFR-18	*
MW-19-1		10.32	WP-B3	5.60	EFR-19	*
MW-19-2		10.43	WP-B4	5.55	EFR-20	*
MW-19-3		11.13	WP-B5	4.34	EFR-21	*
MW-19-4		8.87	WP-B6	5.06	EFR-22	*
MW-19-5		10.61	WP-B7	3.59	EFR-23	*
MW-19-6		8.26	WP-B10	5.94	EFR-24	*
MW-19-7		7.62	WP-C1	5.88	EFR-25	*
MW-19-8		7.98	WP-C2	6.96	EFR-26	*
MW-20		7.96	WP-C3	5.09	EFR-27	*
MW-21		2.56	WP-C4	5.77	EFR-28	*

* Measurements Collected by RMT on later date

Monitoring Well Data

Client: RMT

Project: L.E. Carpenter

Date Sampled: 4/2/01

Job No.: J519

Name of Analyst: Ted Farnath

Names & Signatures of

Samplers: Ted Farnath

TT JT

Rick Toogood

R. Toogood

**INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison**

**777 New Durham Road, Edison, New Jersey
08817**

Job No: J519

Site: L.E. Carpenter

Client: Residuals Management Technologies, Inc.

BNAMS

WATER - 625

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
266473	4/2/2001	4/2/2001	4/6/01	LE	4/13/01	EM	6257
266474	4/2/2001	4/2/2001					
266475	4/2/2001	4/2/2001					
266476	4/2/2001	4/2/2001					
266477	4/2/2001	4/2/2001			4/16/01		
266478	4/2/2001	4/2/2001			4/13/01		
266479	4/2/2001	4/2/2001			4/16/01		
266480	4/2/2001	4/2/2001			4/13/01		
266481	4/2/2001	4/2/2001					
266484	4/2/2001	4/2/2001					

**INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE**
STL Edison

**777 New Durham Road, Edison, New Jersey
08817**

Job No: J519

Site: L.E. Carpenter

Client: Residuals Management Technologies, Inc.

VOAGC

602

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
WATER							
266473	4/2/2001	4/02/2001			4/6/01	JXZ	7172
266474	4/2/2001	4/02/2001					
266475	4/2/2001	4/02/2001					
266476	4/2/2001	4/02/2001					
266477	4/2/2001	4/02/2001			4/7/01		
266478	4/2/2001	4/02/2001					
266479	4/2/2001	4/02/2001					
266480	4/2/2001	4/02/2001					
266481	4/2/2001	4/02/2001					
266482	4/2/2001	4/02/2001					
266483	4/2/2001	4/02/2001					7173
266484	4/2/2001	4/02/2001					1

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/ neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

<u>Element</u>	Water Test Method		Solid Test Method	
	<u>Flame</u>	<u>Furnace</u>	<u>Flame</u>	<u>Furnace</u>
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

Ignitability - Method 1020A

Corrosivity - Water pH Method 9040B
Soil pH Method 9045C

Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release

Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

DATA REPORTING QUALIFIERS

ND - The compound was not detected at the indicated concentration.

J - Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified detection limit but greater than zero. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NON-CONFORMANCE SUMMARY

STL Edison Job Number:

JS19

Volatile Organics Analysis:

All data conforms with method requirements ; or
Analysis was not requested ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ; or
Analysis was not requested ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ; or
Analysis was not requested ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Non-conformance Summary, Page 2 of 2
STL Edison Job Number: JSL9

Metals Analysis:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of

Laboratory Manager:

C. C. Anderson Date: 4-24-01

Client ID: MW-15I
Site: L.E. Carpenter

Lab Sample No: 266473
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7728.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	1.2B	0.4

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7728.d
Report Date: 16-Apr-2001 11:06

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7728.d
Lab Smp Id: 266473 Client Smp ID: MW-15I
Inj Date : 13-APR-2001 00:24
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266473;1000;2;1;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50 Compound Sublist: J519.sub
Processing Host: hpdl

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	CONCENTRATIONS				
			RT	EXP RT	REL RT	RESPONSE	(ug/ml) FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4		152	13.140	13.134 (1.000)		457300	40.0000
\$ 76 Nitrobenzene-d5 (SUR)		82	14.099	14.098 (0.920)		558139	42.7000 85
* 80 Naphthalene-d8		136	15.323	15.323 (1.000)		1472270	40.0000
\$ 77 2-Fluorobiphenyl (SUR)		172	17.110	17.107 (0.937)		1032503	41.1978 82
* 82 Acenaphthene-d10		164	18.255	18.254 (1.000)		966192	40.0000
* 83 Phenanthrene-d10		188	20.723	20.724 (1.000)		1214136	40.0000
\$ 78 Terphenyl-d14 (SUR)		244	23.337	23.332 (0.928)		893610	42.0422 84
63 bis(2-Ethylhexyl)phthalate		149	25.057	25.066 (0.996)		28355	0.59940 1.2
* 81 Chrysene-d12		240	25.151	25.168 (1.000)		952857	40.0000
* 84 Perylene-d12		264	28.791	28.809 (1.000)		748524	40.0000

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7728.d

Date : 13-APR-2001 00:24

Client ID: MW-15I

Sample Info: 266473;1000;2;1;;

Purge Volume: 1000.0

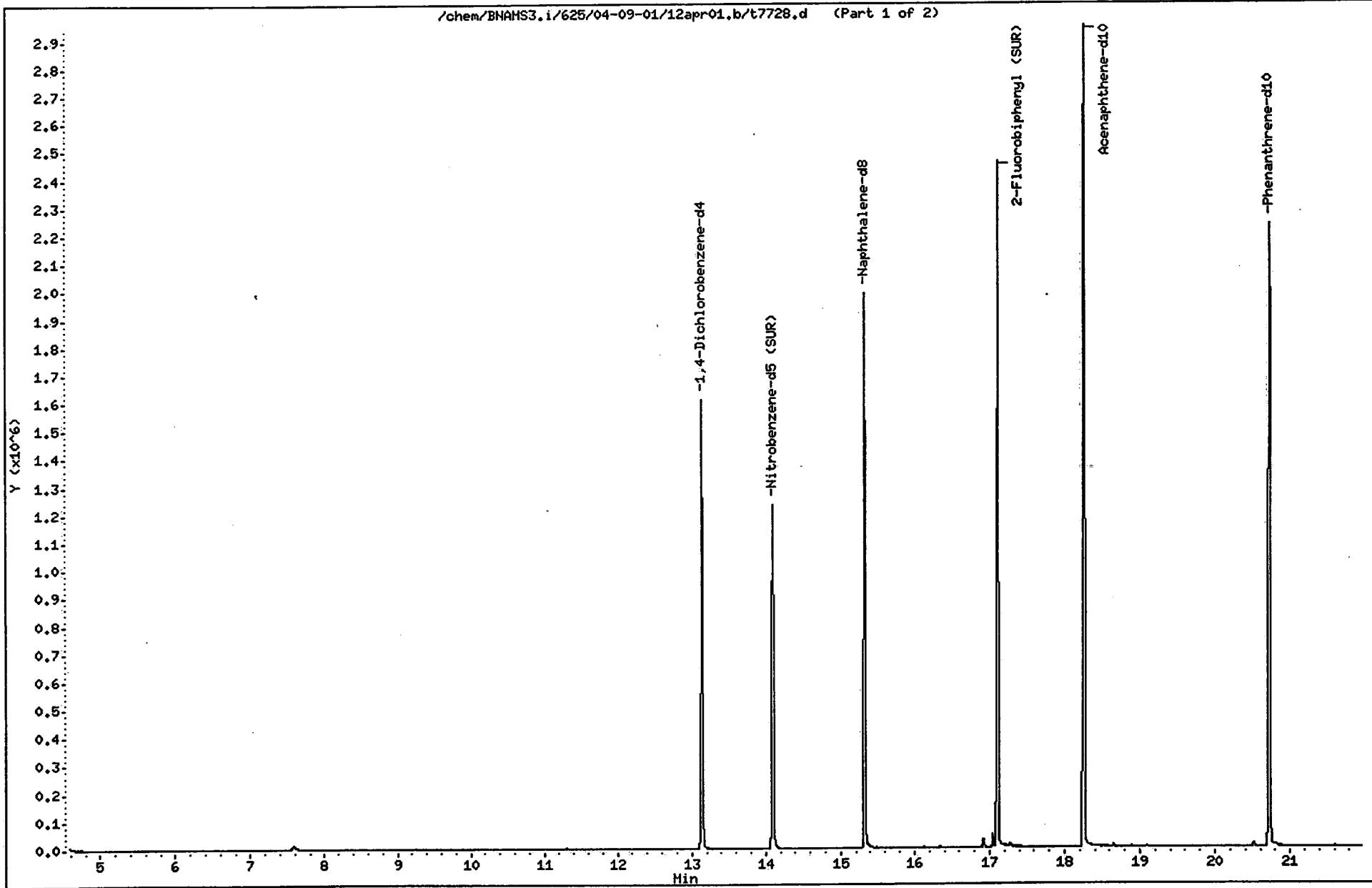
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7728.d (Part 1 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7728.d

Date : 13-APR-2001 00:24

Client ID: HW-15I

Sample Info: 266473;1000;2;1;;

Purge Volume: 1000.0

Column phase: DB-5

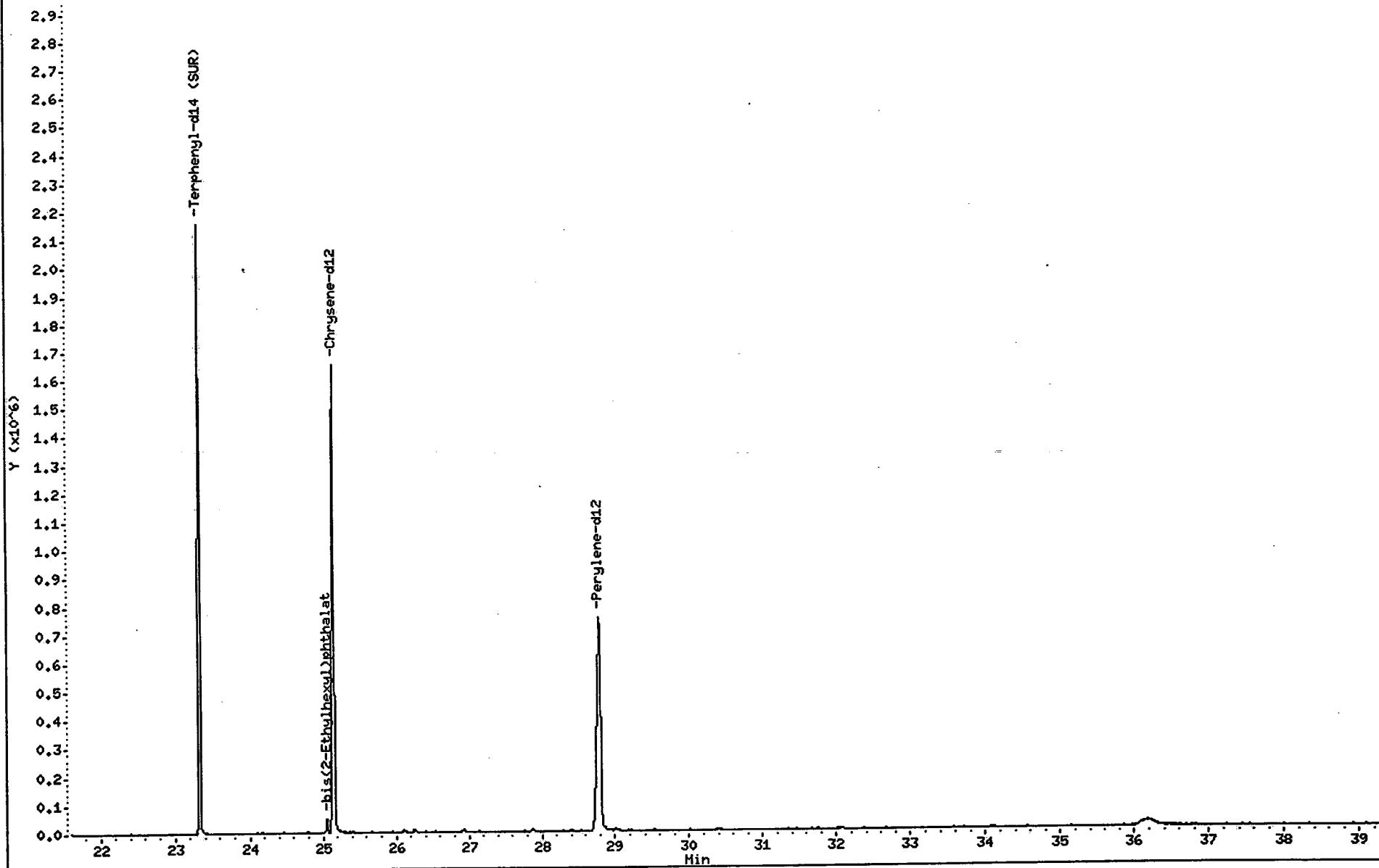
Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

38

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7728.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7728.d

Date : 13-APR-2001 00:24

Client ID: MW-15I

Instrument: BNAMS3.i

Sample Info: 266473;1000;2;1;;

Purge Volume: 1000.0

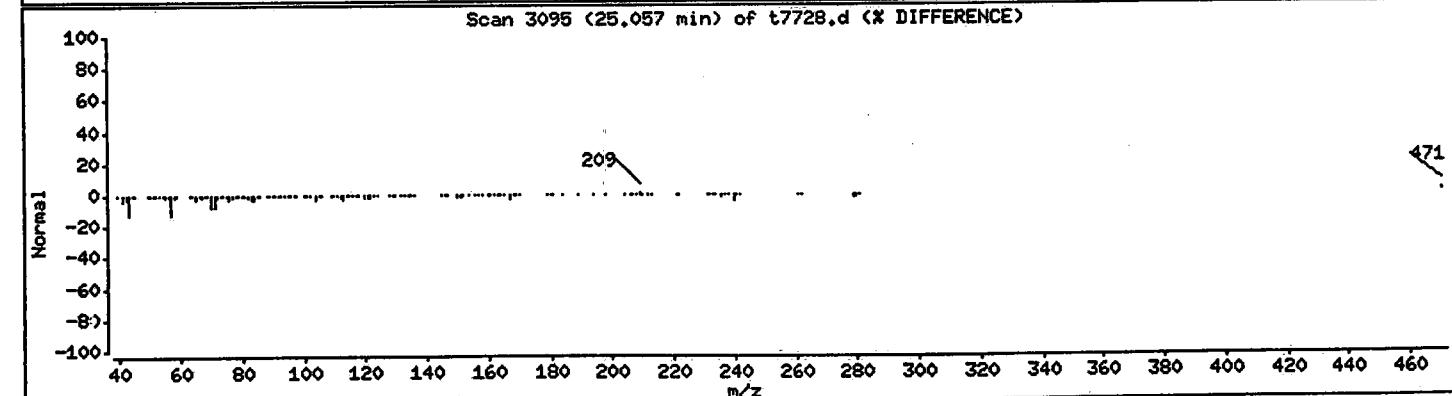
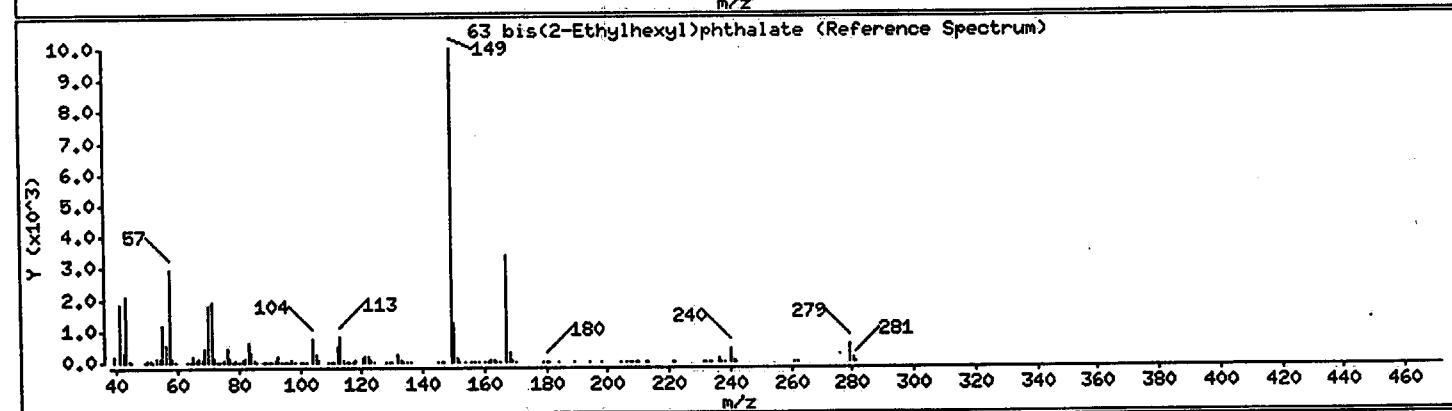
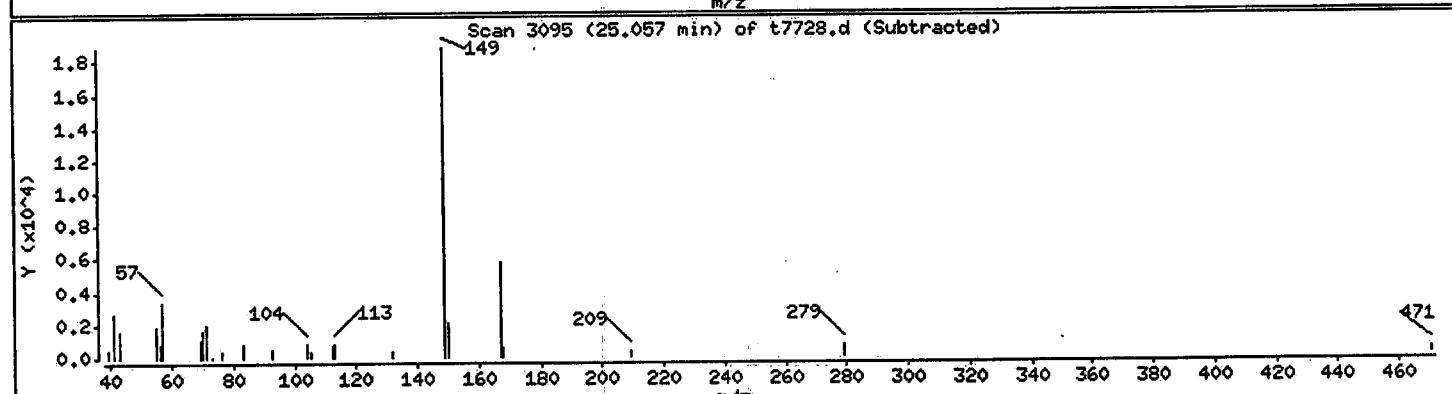
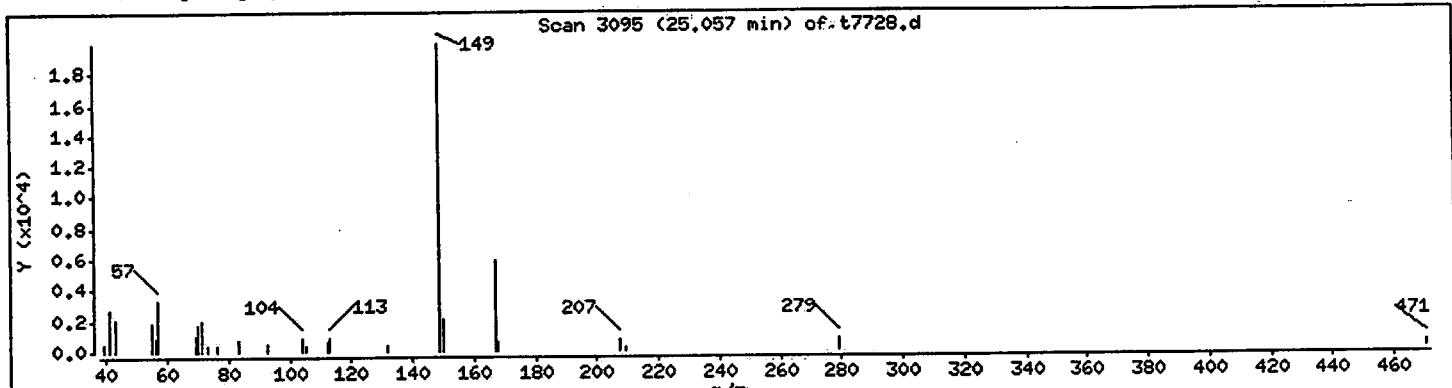
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 1.2 ug/L



Client ID: MW-15S
Site: L.E. Carpenter

Lab Sample No: 266474
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7729.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	0.8B	0.4

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7729.d
Report Date: 16-Apr-2001 11:06

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7729.d
Lab Smp Id: 266474 Client Smp ID: MW-15S
Inj Date : 13-APR-2001 01:13
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266474;1000;2;1;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 em Cal File: t7625.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: hpdl
Compound Sublist: J519.sub

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml) FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.139	13.134	(1.000)	509265	40.0000	
\$ 76 Nitrobenzene-d5 (SUR)	82	14.099	14.098	(0.920)	654451	45.0940	90
* 80 Naphthalene-d8	136	15.323	15.323	(1.000)	1634674	40.0000	
\$ 77 2-Fluorobiphenyl (SUR)	172	17.110	17.107	(0.937)	1164444	40.8105	82
* 82 Acenaphthene-d10	164	18.255	18.254	(1.000)	1100002	40.0000	
* 83 Phenanthrene-d10	188	20.723	20.724	(1.000)	1375375	40.0000	
\$ 78 Terphenyl-d14 (SUR)	244	23.337	23.332	(0.928)	1025674	43.0716	86
63 bis(2-Ethylhexyl)phthalate	149	25.057	25.066	(0.996)	19870	0.37491	0.75
* 81 Chrysene-d12	240	25.157	25.168	(1.000)	1067540	40.0000	
* 84 Perylene-d12	264	28.798	28.809	(1.000)	842531	40.0000	

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7729.d

Date : 13-APR-2001 01:13

Client ID: MW-15S

Sample Info: 266474;1000;2;1;;

Purge Volume: 1000.0

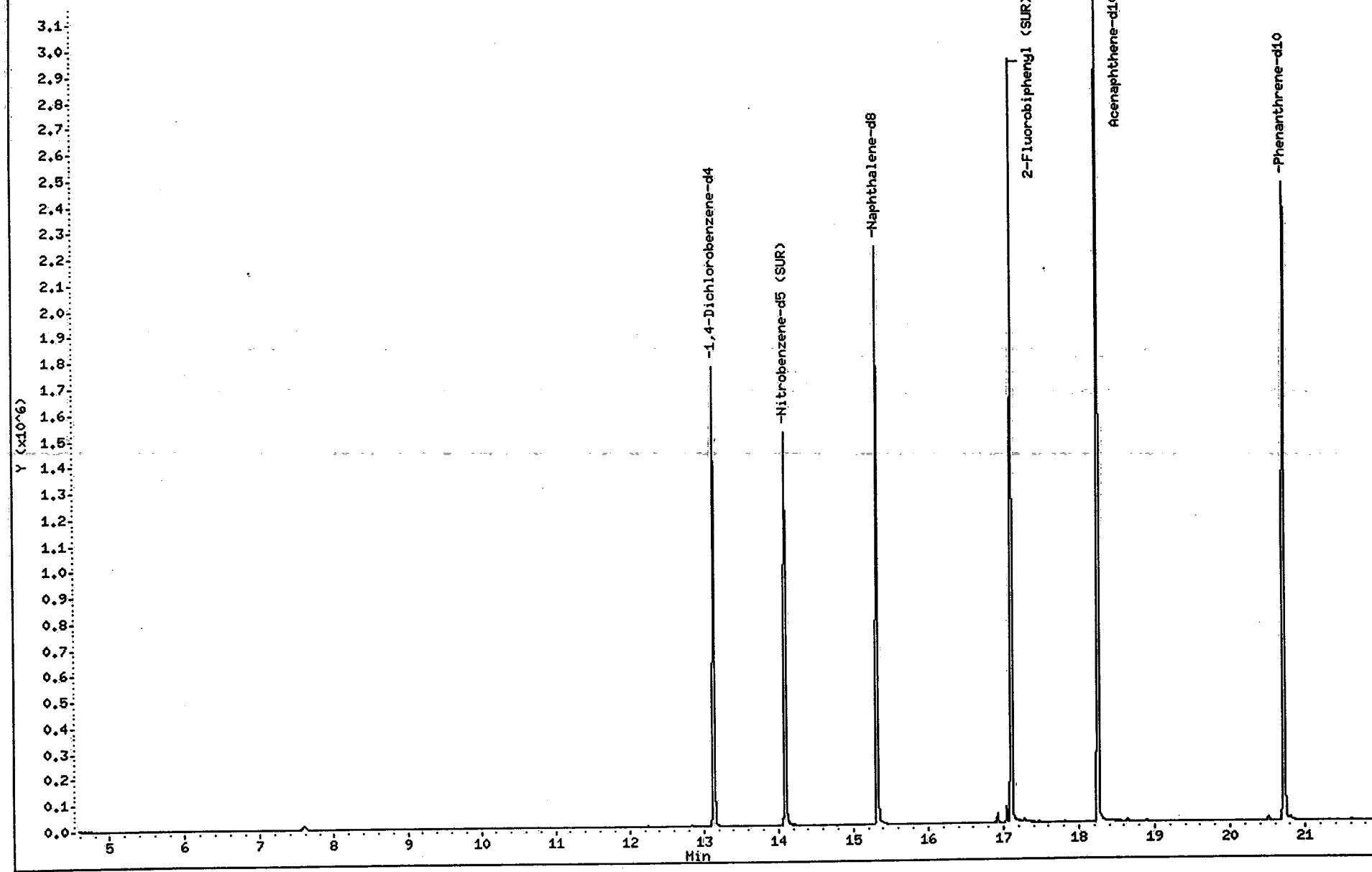
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7729.d (Part 1 of 2)



Data File: /chem/BNAMS3.1/625/04-09-01/12apr01.b/t7729.d

Date : 13-APR-2001 01:13

Client ID: MW-15S

Sample Info: 266474;1000;2;1;;

Purge Volume: 1000.0

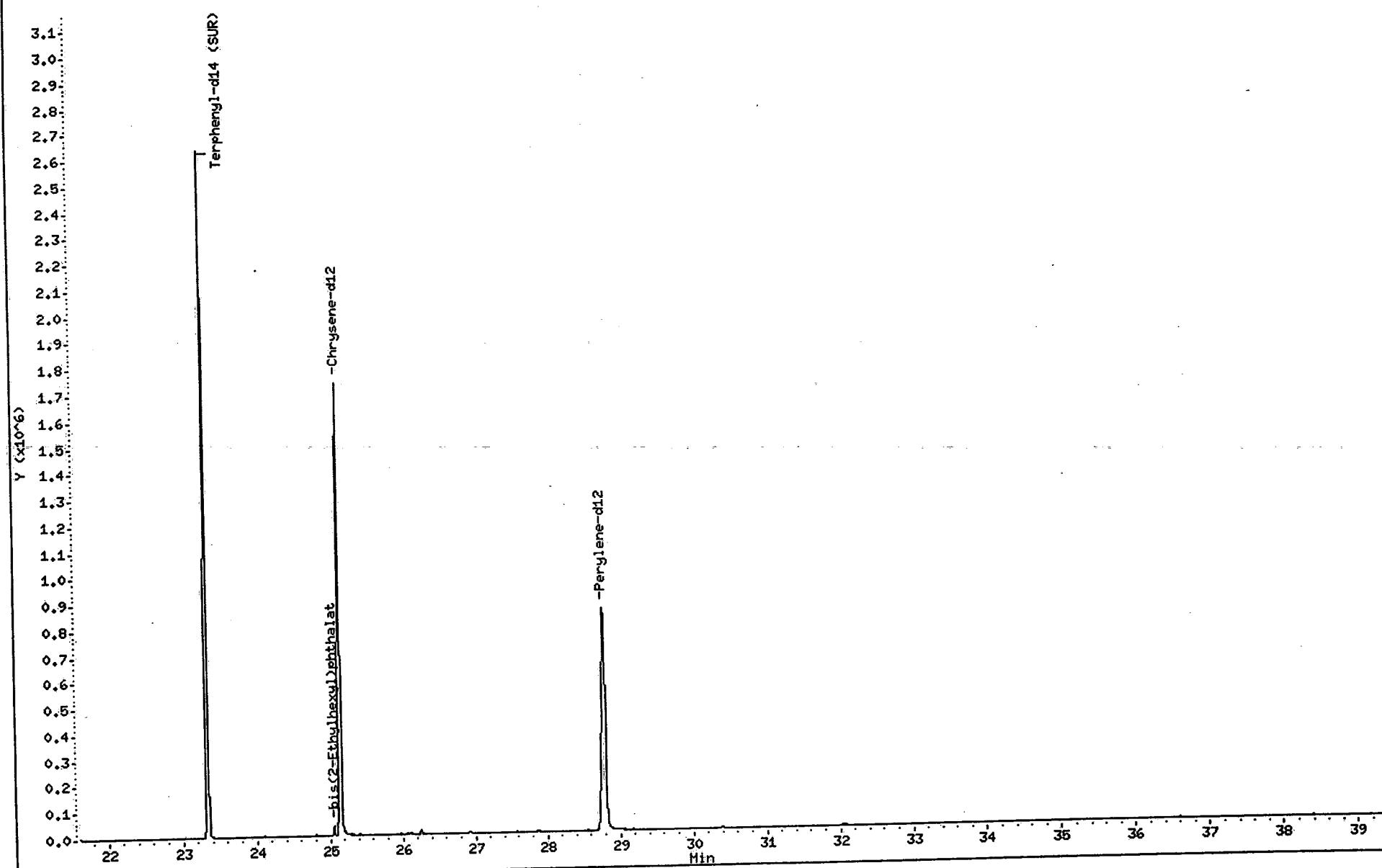
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7729.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7729.d

Date : 13-APR-2001 01:13

Client ID: HW-15S

Instrument: BNAMS3.i

Sample Info: 266474;1000;2;1;;

Purge Volume: 1000.0

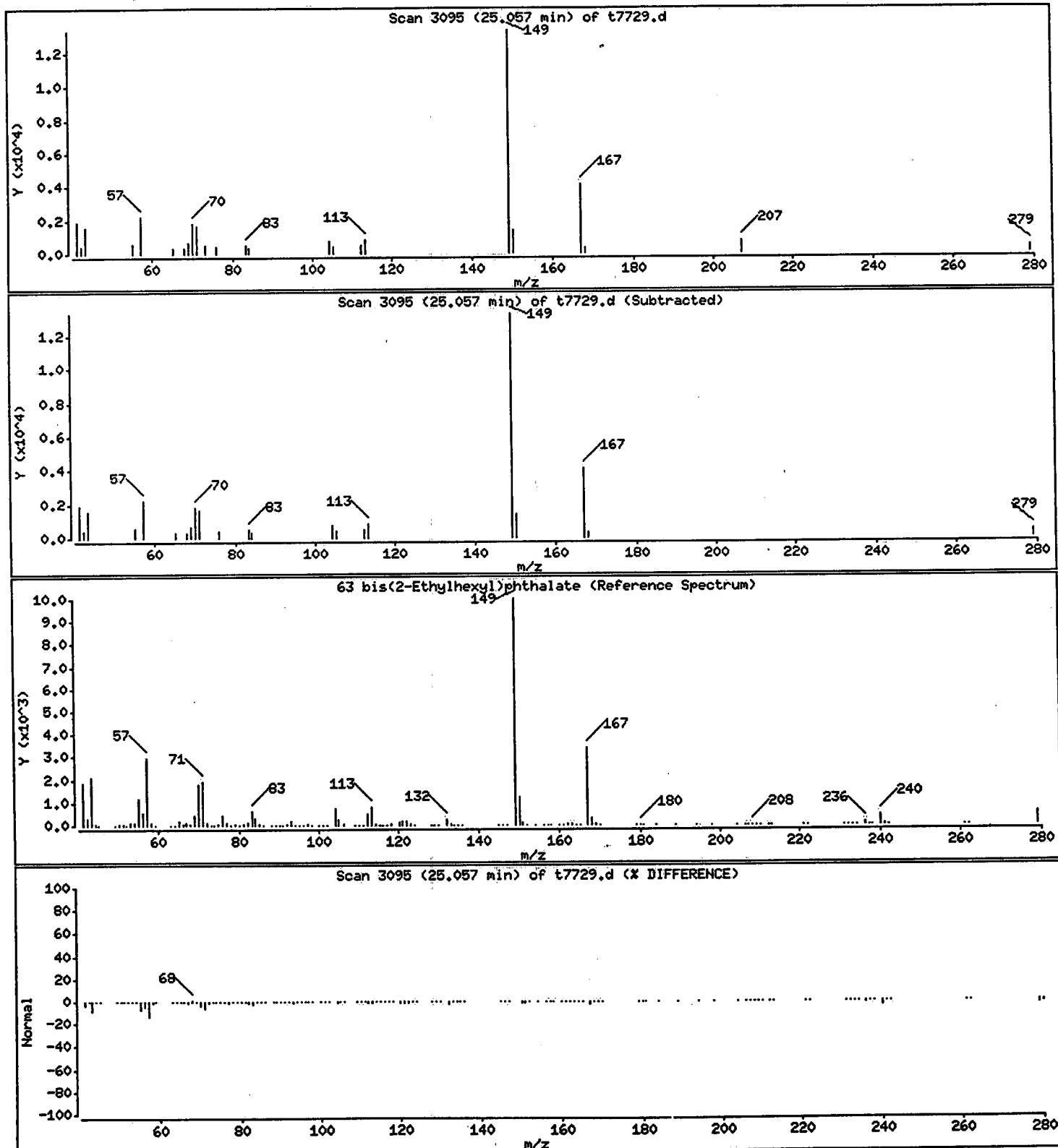
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 0.75 ug/L



Client ID: MW-17S
Site: L.E. Carpenter

Lab Sample No: 266475
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7730.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 1.8B 0.4

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7730.d
Report Date: 16-Apr-2001 11:06

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7730.d
Lab Smp Id: 266475 Client Smp ID: MW-17S
Inj Date : 13-APR-2001 02:01
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266475;1000;2;1;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: hpdl

Compound Sublist: J519.sub

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.133	13.134	(1.000)	500173	40.0000		
\$ 76 Nitrobenzene-d5 (SUR)	82	14.099	14.098	(0.920)	595602	43.5681	87	
* 80 Naphthalene-d8	136	15.323	15.323	(1.000)	1539787	40.0000		
\$ 77 2-Fluorobiphenyl (SUR)	172	17.110	17.107	(0.937)	1063926	38.3316	77	
* 82 Acenaphthene-d10	164	18.255	18.254	(1.000)	1070042	40.0000		
* 83 Phenanthrene-d10	188	20.723	20.724	(1.000)	1325541	40.0000		
\$ 78 Terphenyl-d14 (SUR)	244	23.337	23.332	(0.928)	950883	40.6089	81	
63 bis(2-Ethylhexyl)phthalate	149	25.057	25.066	(0.996)	45770	0.87827	1.8	
* 81 Chrysene-d12	240	25.157	25.168	(1.000)	1049714	40.0000		
* 84 Perylene-d12	264	28.798	28.809	(1.000)	826406	40.0000		

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7730.d

Date : 13-APR-2001 02:01

Client ID: MW-17S

Sample Info: 266475;1000;2;1;;

Purge Volume: 1000.0

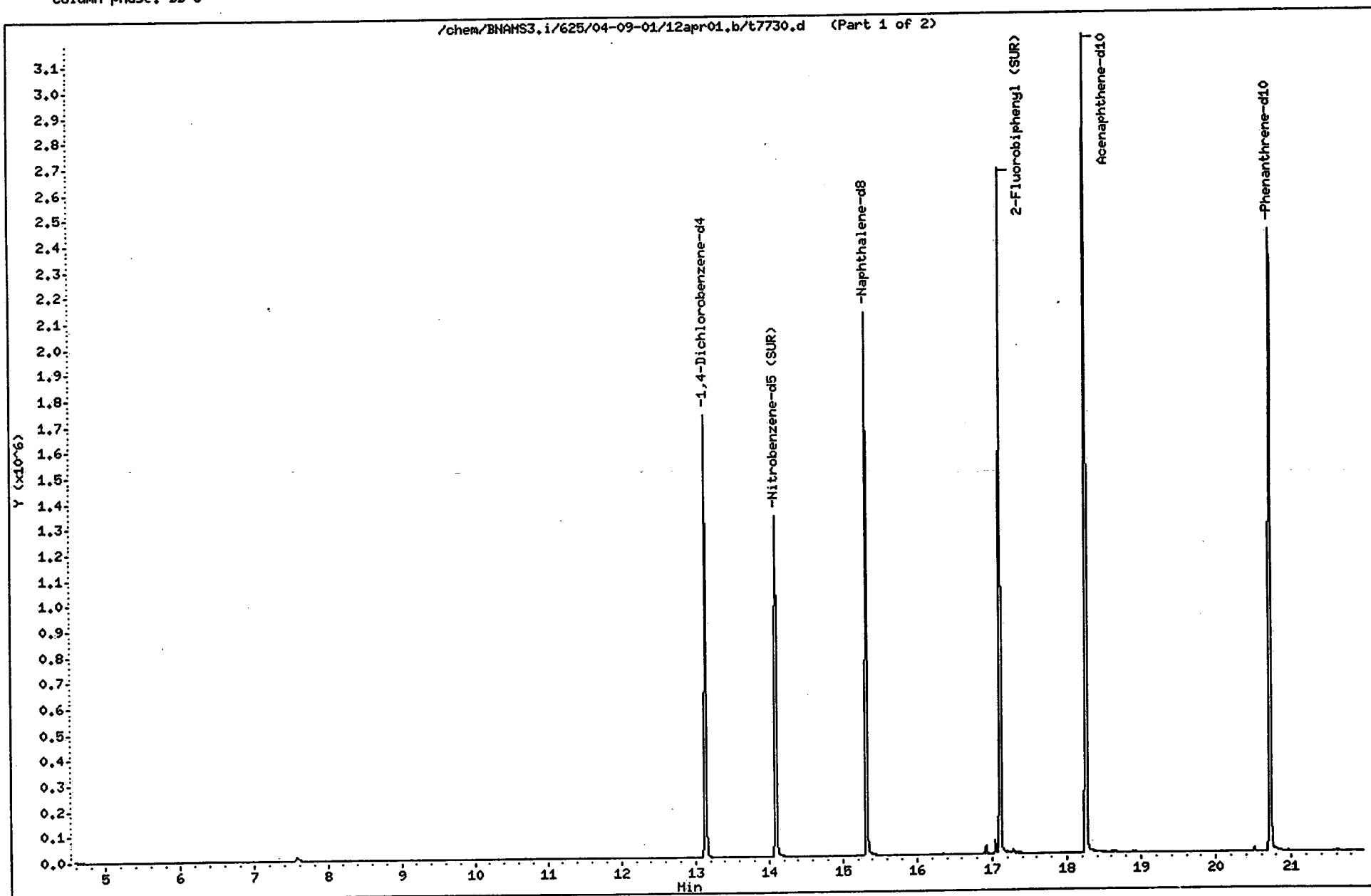
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7730.d (Part 1 of 2)

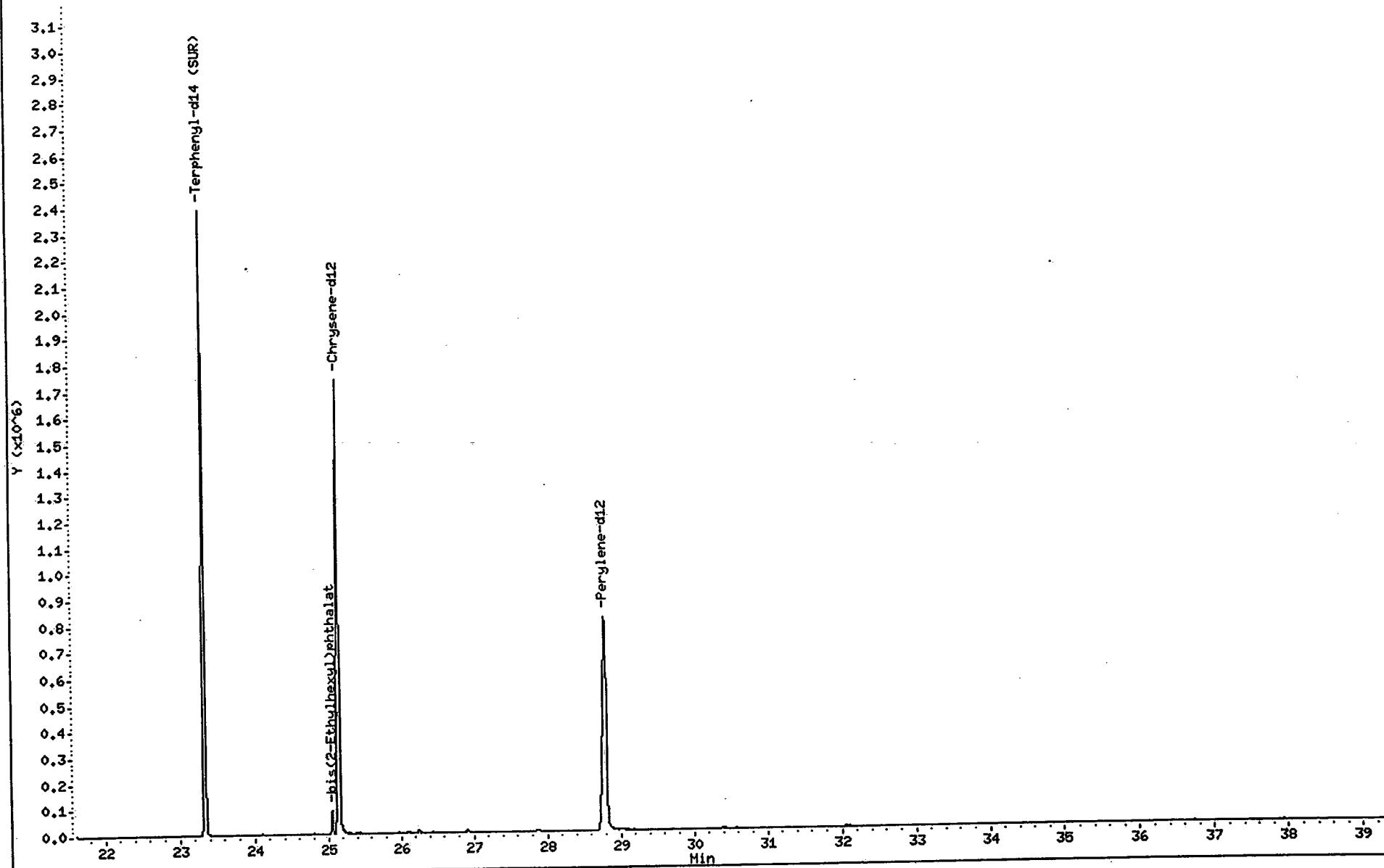


Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7730.d
Date : 13-APR-2001 02:01
Client ID: MW-17S
Sample Info: 266475;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

48

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7730.d (Part 2 of 2)



Data File: /chem/BNAHS3.i/625/04-09-01/12apr01.b/t7730.d

Date : 13-APR-2001 02:01

Client ID: MW-17S

Instrument: BNAHS3.i

Sample Info: 266475;1000;2;1;;

Operator: BNAHS 1

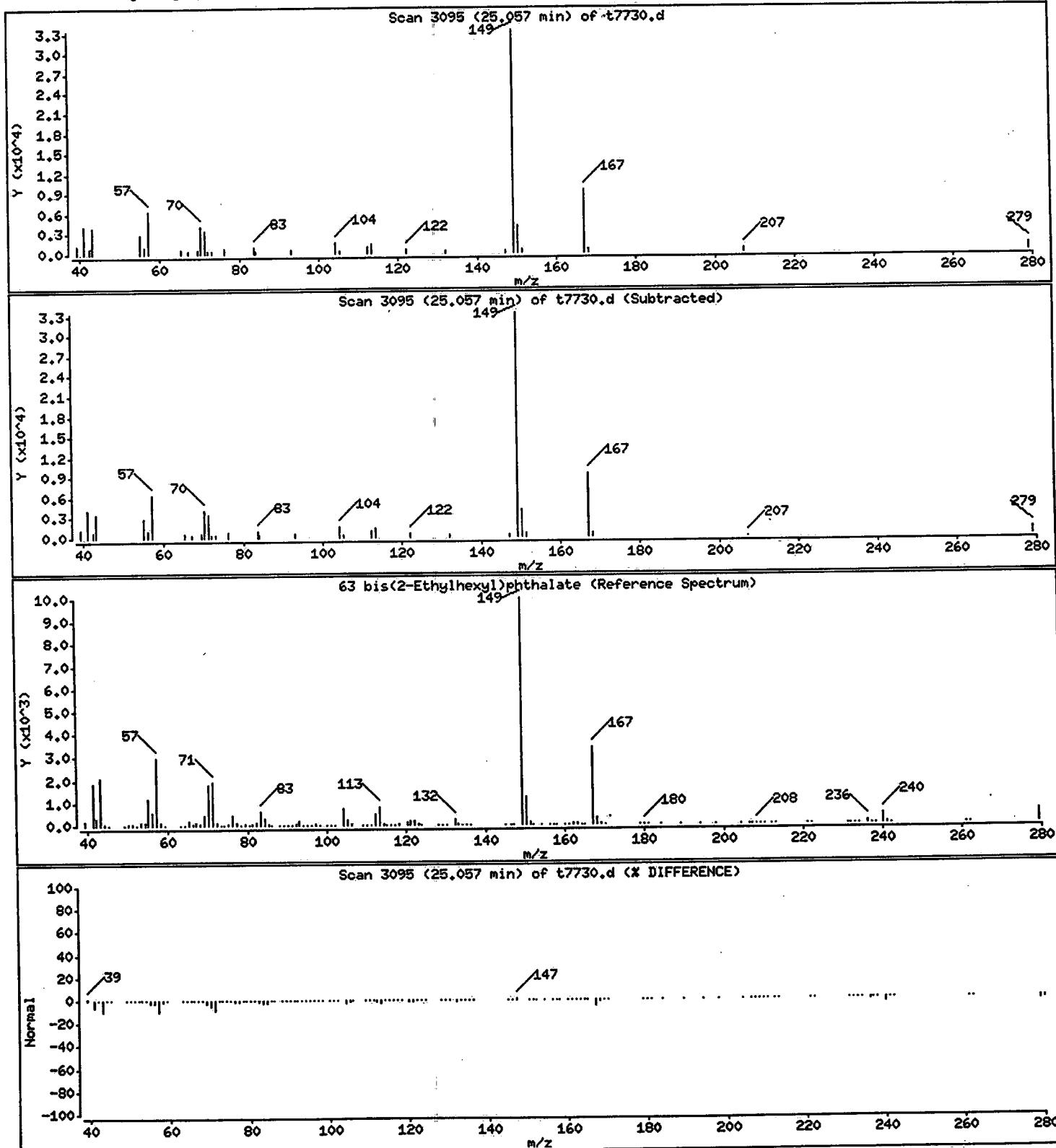
Purge Volume: 1000.0

Column diameter: 0.53

Column phase: DB-5

Concentration: 1.8 ug/L

63 bis(2-Ethylhexyl)phthalate



Client ID: MW-11DR
Site: L.E. Carpenter

Lab Sample No: 266476
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7731.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	1.5B	0.4

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7731.d
Report Date: 16-Apr-2001 11:06

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7731.d
Lab Smp Id: 266476 Client Smp ID: MW-11DR
Inj Date : 13-APR-2001 02:50
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266476;1000;2;1;;
Misc Info : J519;SPECIALBN;6257;143

Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: hpdl

Compound Sublist: J519.sub

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

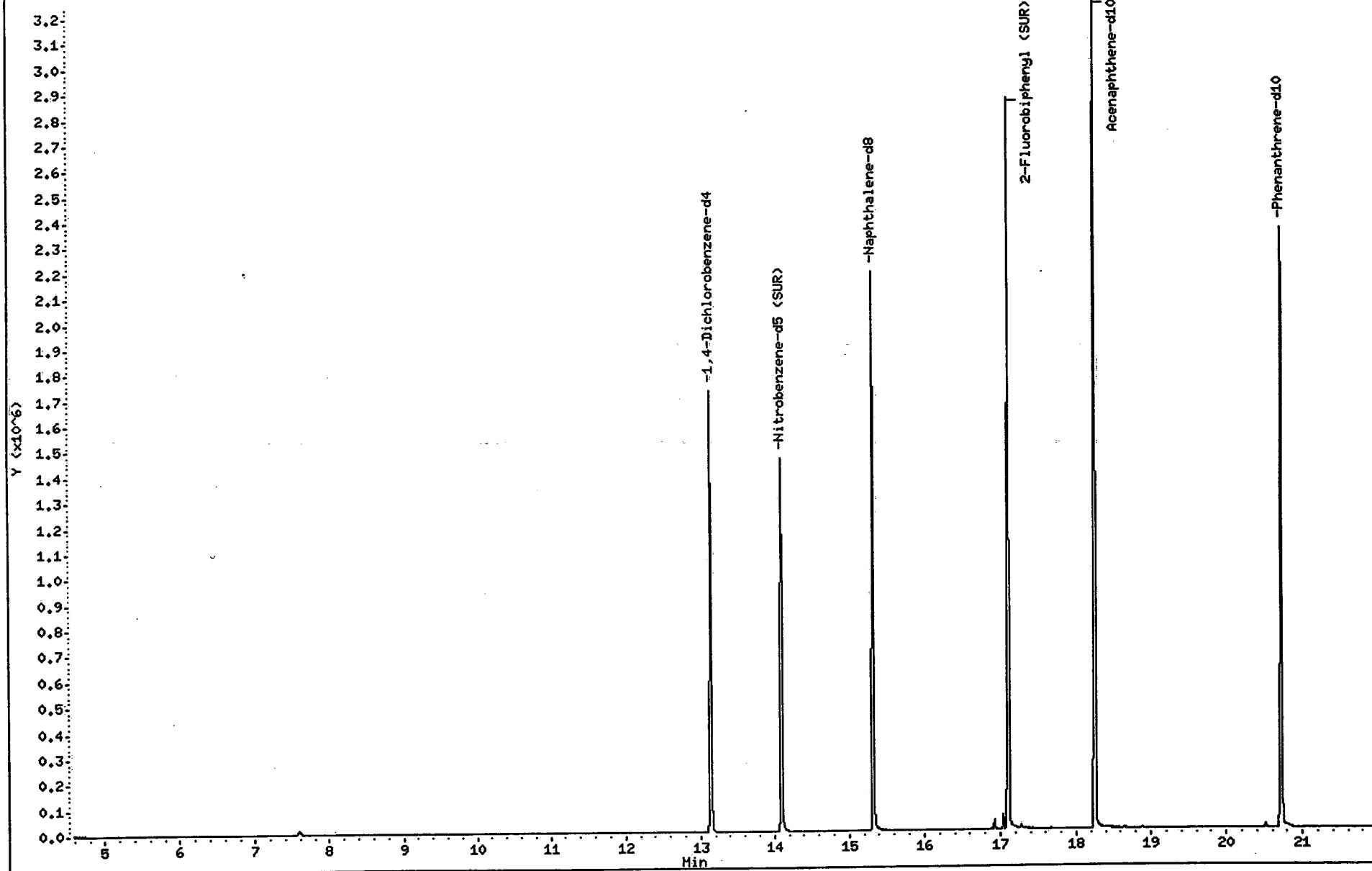
Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							(ug/ml)	(ug/L)
* 79 1,4-Dichlorobenzene-d4		152	13.140	13.134 (1.000)		502568	40.0000	
\$ 76 Nitrobenzene-d5 (SUR)		82	14.099	14.098 (0.920)		628584	44.5811	89
* 80 Naphthalene-d8		136	15.323	15.323 (1.000)		1588126	40.0000	
\$ 77 2-Fluorobiphenyl (SUR)		172	17.110	17.107 (0.937)		1132770	41.6446	83
* 82 Acenaphthene-d10		164	18.255	18.254 (1.000)		1048647	40.0000	
* 83 Phenanthrene-d10		188	20.723	20.724 (1.000)		1316359	40.0000	
\$ 78 Terphenyl-d14 (SUR)		244	23.337	23.332 (0.928)		952588	41.8870	84
63 bis(2-Ethylhexyl)phthalate		149	25.057	25.066 (0.996)		37969	0.75016	1.5
* 81 Chrysene-d12		240	25.157	25.168 (1.000)		1019509	40.0000	
* 84 Perylene-d12		264	28.798	28.809 (1.000)		813915	40.0000	

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7731.d
Date : 13-APR-2001 02:50
Client ID: MW-11DR
Sample Info: 266476;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

52

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7731.d (Part 1 of 2)

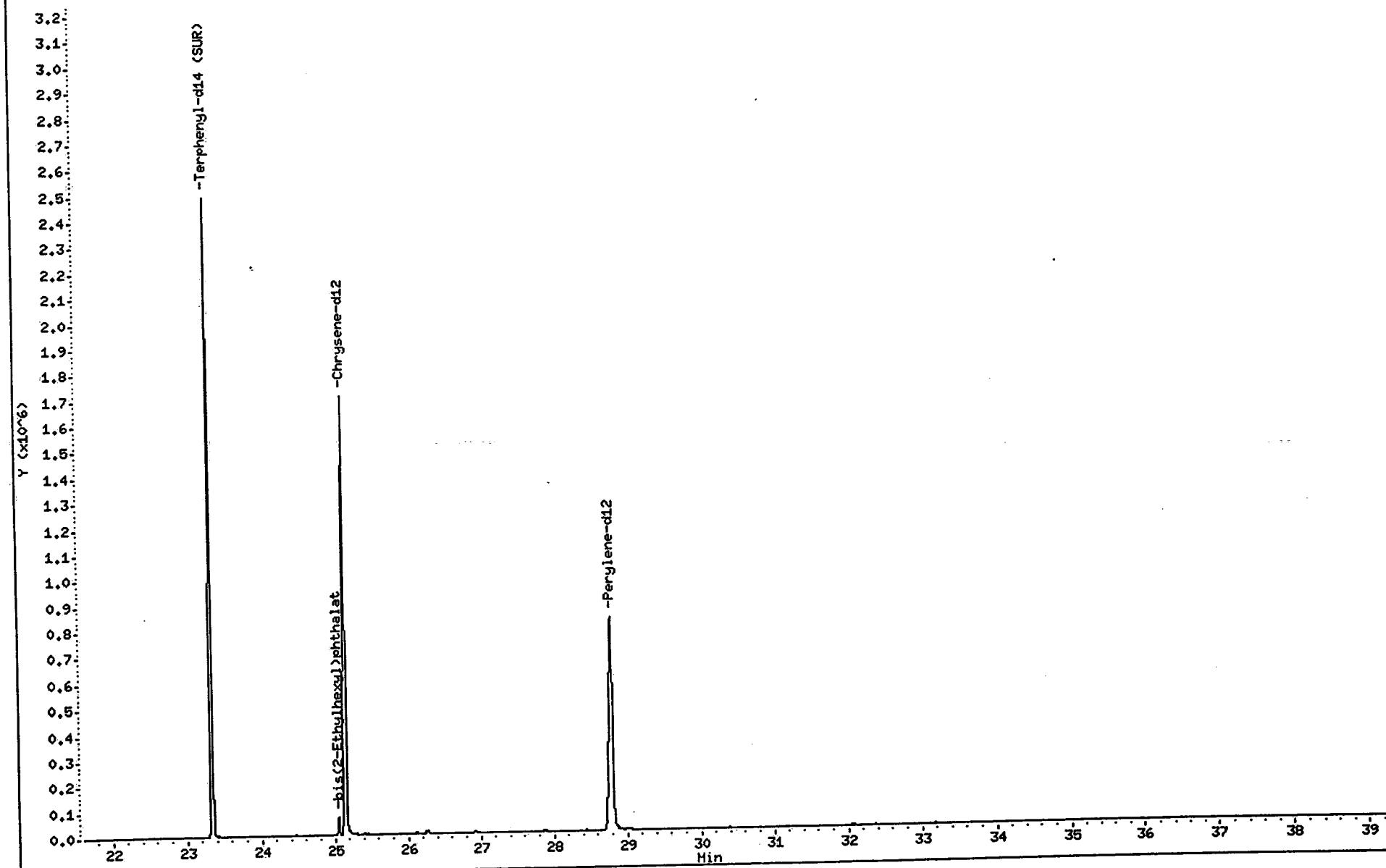


Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7731.d
Date : 13-APR-2001 02:50
Client ID: MW-11DR
Sample Info: 266476;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

53
50

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7731.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7731.d

Date : 13-APR-2001 02:50

Client ID: MW-11DR

Instrument: BNAMS3.i

Sample Info: 266476;1000;2;1;;

Purge Volume: 1000.0

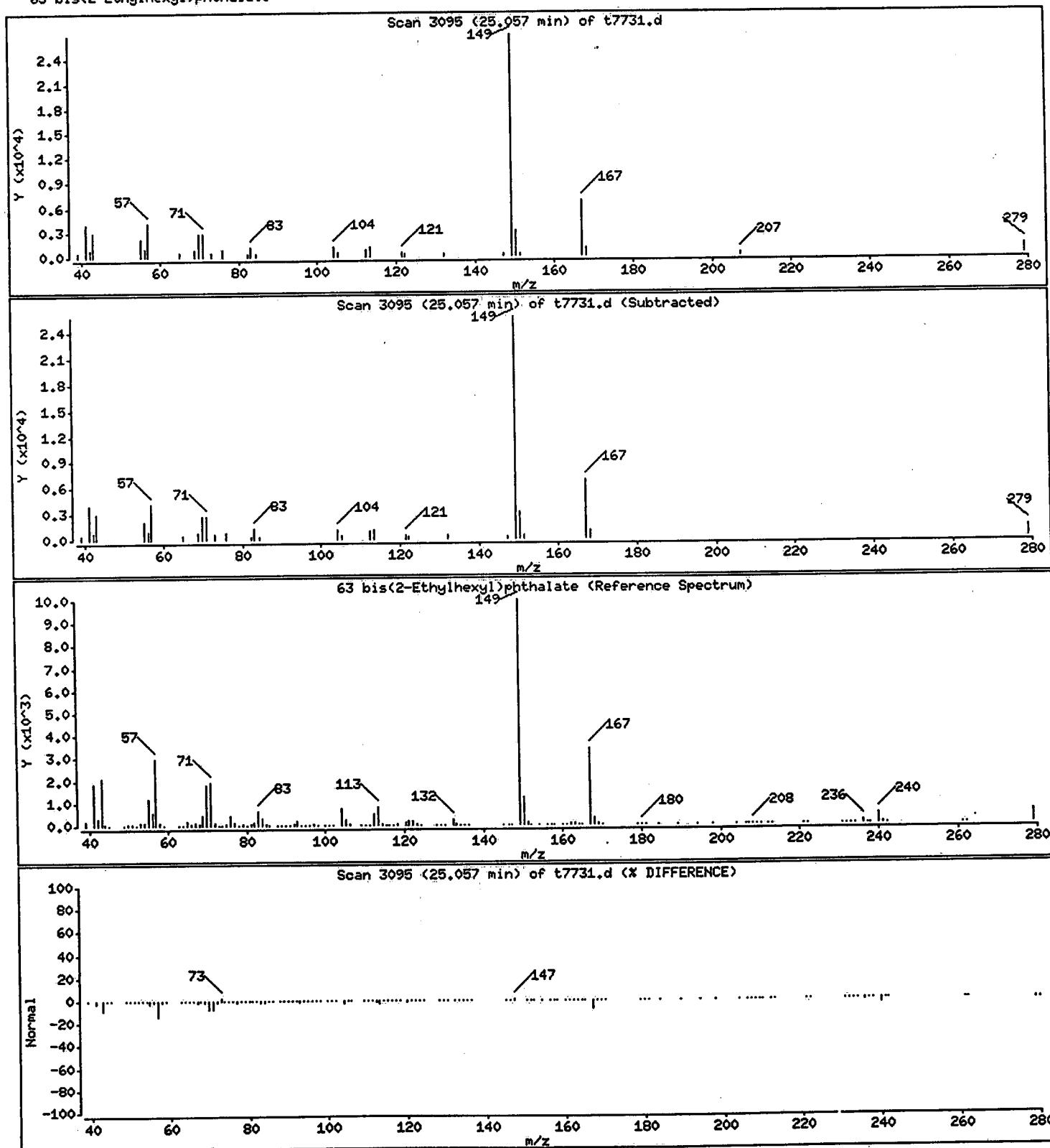
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 1.5 ug/L



Client ID: MW-4
Site: L.E. Carpenter

Lab Sample No: 266477
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/16/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7756.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	300 B	0.9

Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7756.d
Report Date: 17-Apr-2001 12:07

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS
Data file : /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7756.d
Lab Smp Id: 266477 Client Smp ID: MW-4
Inj Date : 16-APR-2001 18:58
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266477;1000;2;2;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/16apr01.b/bna625b.m
Meth Date : 16-Apr-2001 09:48 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 13
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: J519.sub
Target Version: 3.50
Processing Host: hpdl

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/L)
* 79 1,4-Dichlorobenzene-d4	====	152	13.127	13.134 (1.000)	466926	40.0000		
\$ 76 Nitrobenzene-d5 (SUR)	==	82	14.081	14.098 (0.920)	313262	23.6954	95	
* 80 Naphthalene-d8	====	136	15.311	15.316 (1.000)	1489075	40.0000		
\$ 77 2-Fluorobiphenyl (SUR)	====	172	17.098	17.107 (0.937)	577742	22.7780	91	
* 82 Acenaphthene-d10	====	164	18.243	18.253 (1.000)	977835	40.0000		
* 83 Phenanthrene-d10	====	188	20.711	20.723 (1.000)	1245048	40.0000		
\$ 78 Terphenyl-d14 (SUR)	====	244	23.318	23.330 (0.928)	498627	23.5732	94	
63 bis(2-Ethylhexyl)phthalate	====	149	25.053	25.058 (0.997)	3503762	74.4267	300	
* 81 Chrysene-d12	====	240	25.140	25.166 (1.000)	948251	40.0000		
* 84 Perylene-d12	====	264	28.773	28.801 (1.000)	853172	40.0000		

Data File: /chem/BNAMS3.1/625/04-09-01/16apr01.b/t7756.d

Date : 16-APR-2001 18:58

Client ID: MW-4

Sample Info: 266477;1000;2;2;;

Purge Volume: 1000.0

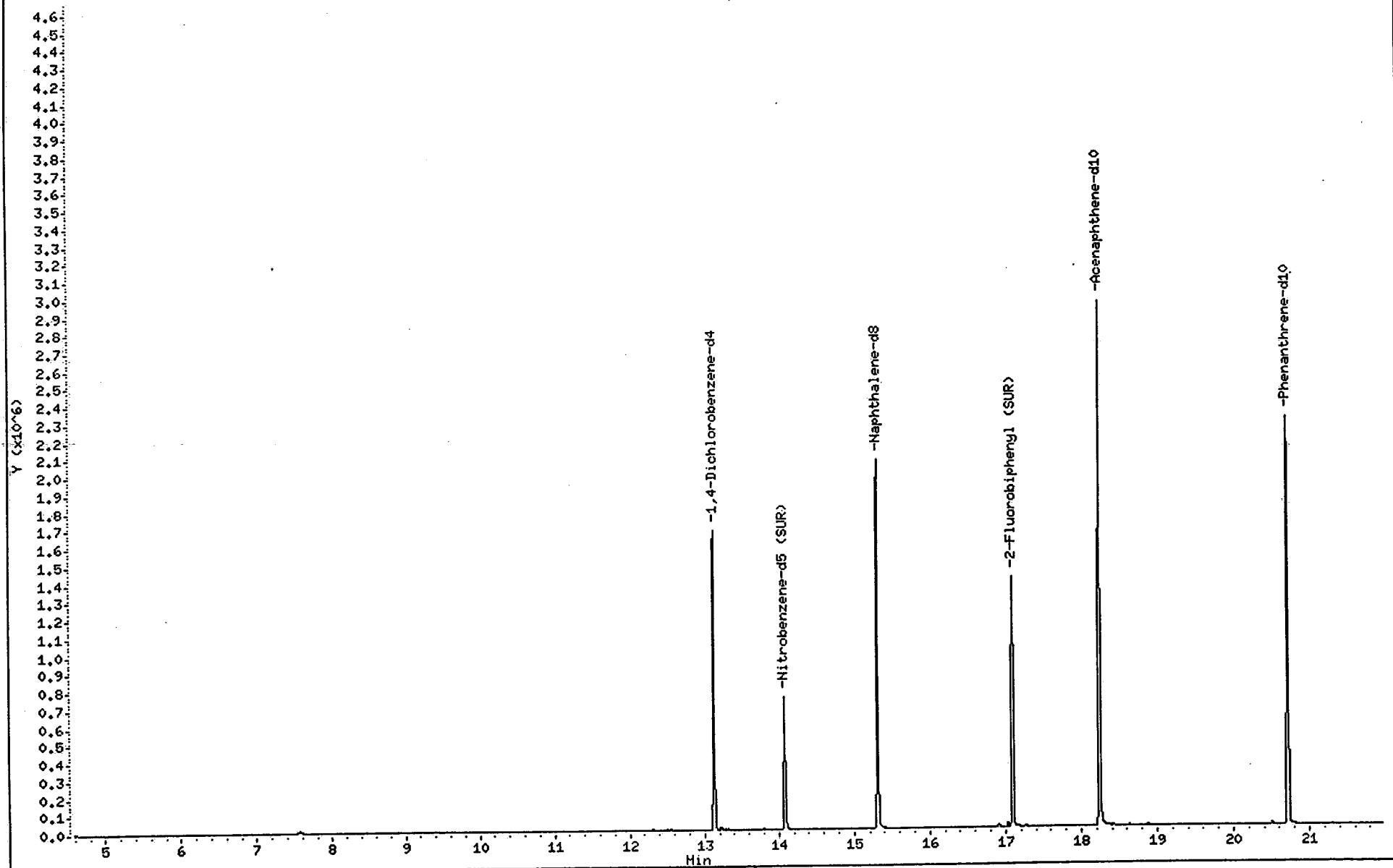
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

/chem/BNAMS3.1/625/04-09-01/16apr01.b/t7756.d (Part 1 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7756.d

Date : 16-APR-2001 18:58

Client ID: MW-4

Sample Info: 266477;1000;2;2;;

Purge Volume: 1000.0

Column phase: DB-5

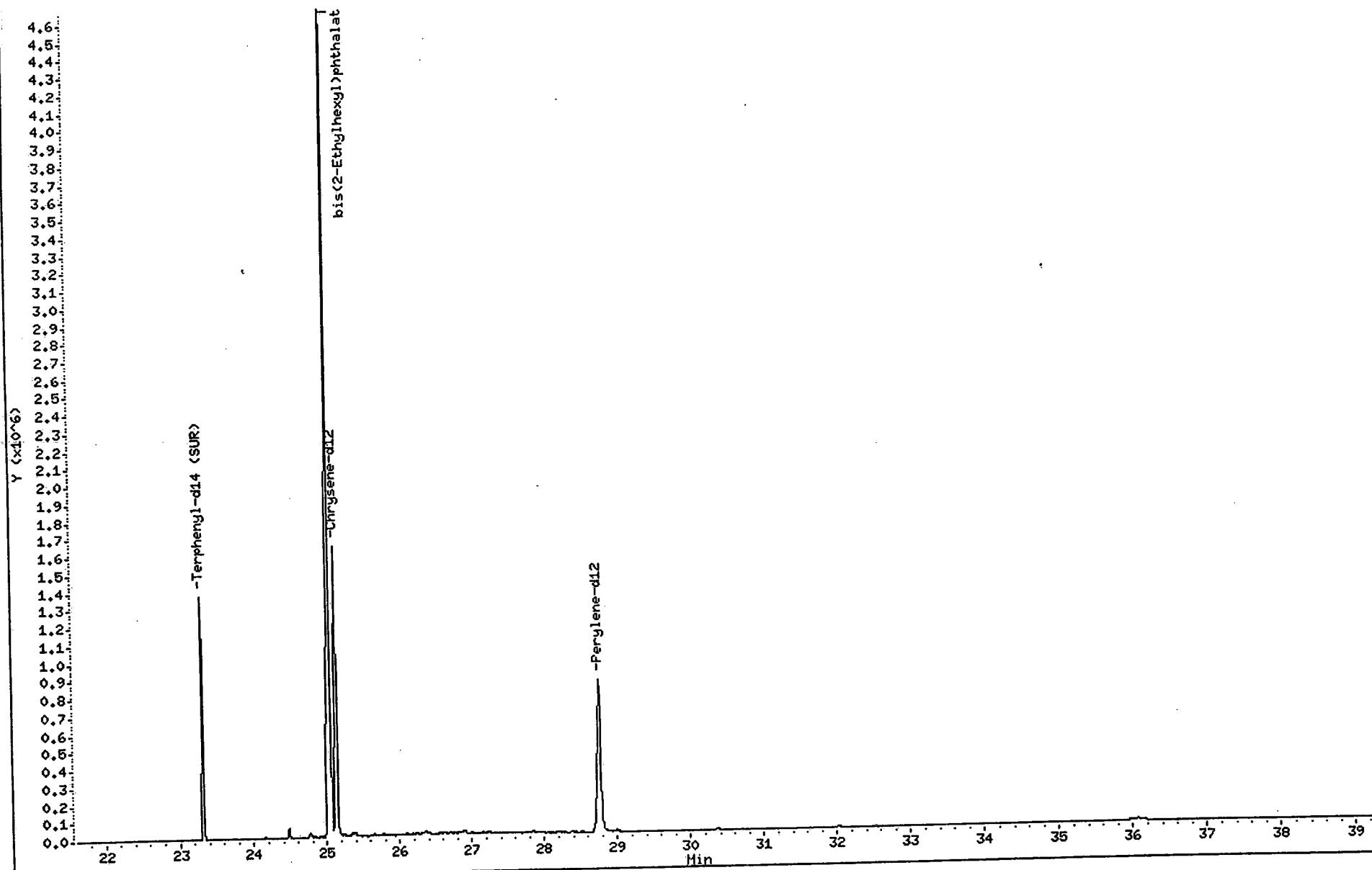
Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

50

/chem/BNAMS3.i/625/04-09-01/16apr01.b/t7756.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7756.d

Date : 16-APR-2001 18:58

Client ID: MW-4

Instrument: BNAMS3.i

Sample Info: 266477;1000;2;2;;

Purge Volume: 1000.0

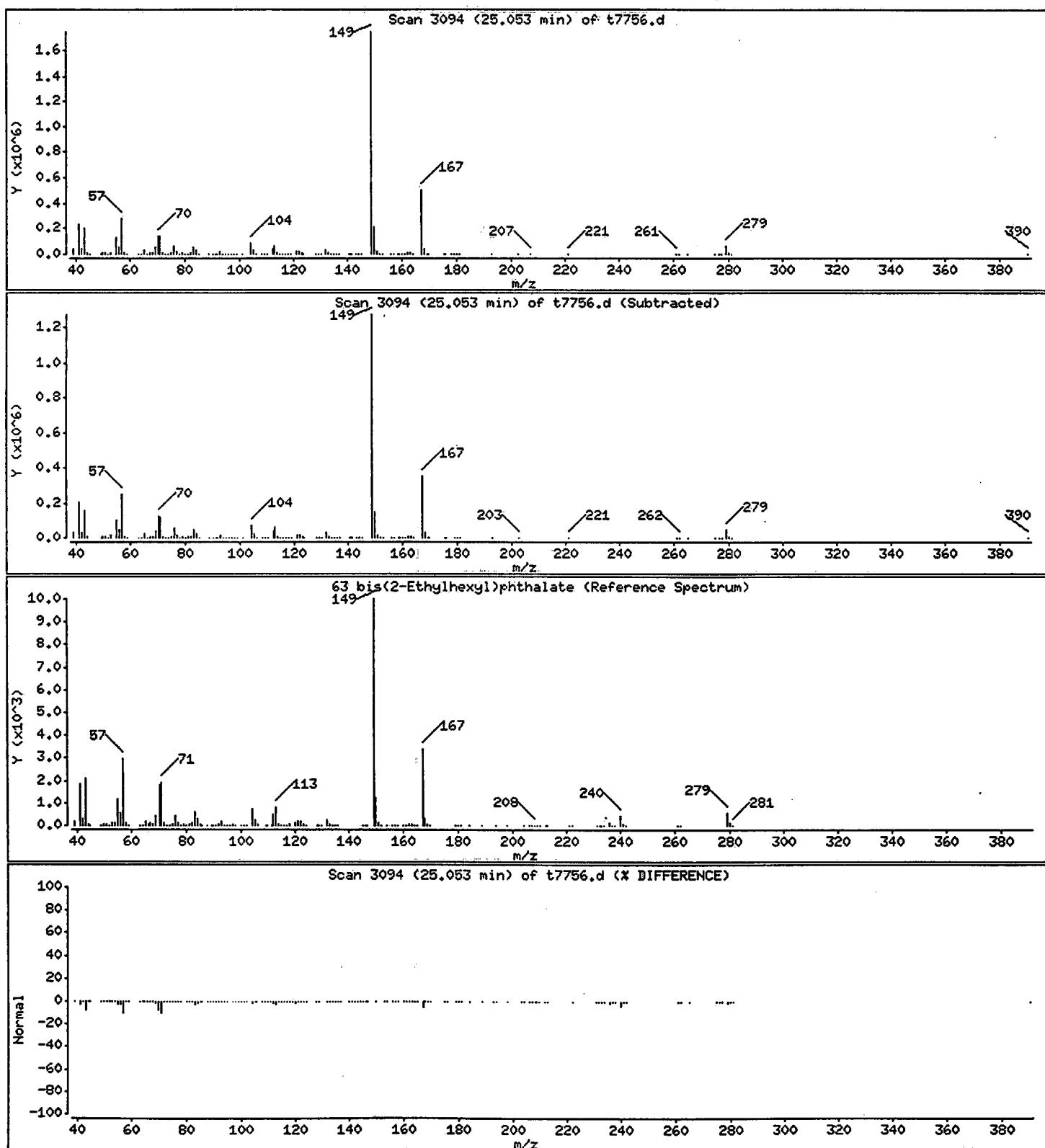
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 300 ug/L



Client ID: MW-14I
Site: L.E. Carpenter

Lab Sample No: 266478
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7733.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	3.5B	0.4

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7733.d
Report Date: 16-Apr-2001 11:07

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7733.d
Lab Smp Id: 266478 Client Smp ID: MW-14I
Inj Date : 13-APR-2001 04:27
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266478;1000;2;1;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: hpd1
Compound Sublist: J519.sub

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

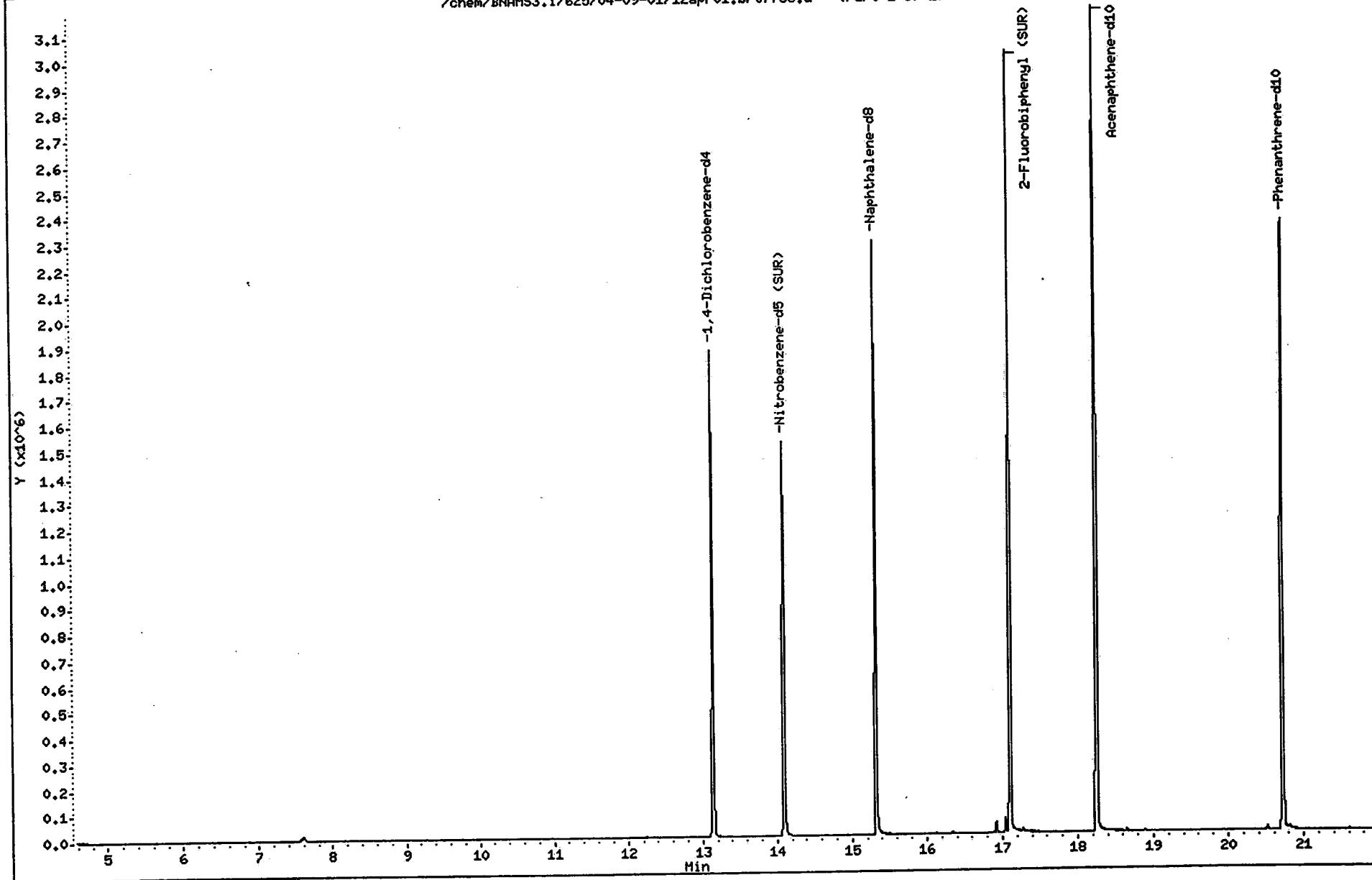
Compounds	QUANT SIG	MASS	CONCENTRATIONS				
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml) FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	====	152	13.139	13.134 (1.000)		508617	40.0000
\$ 76 Nitrobenzene-d5 (SUR)	====	82	14.099	14.098 (0.920)		659947	46.3622 93
* 80 Naphthalene-d8	====	136	15.323	15.323 (1.000)		1603312	40.0000
\$ 77 2-Fluorobiphenyl (SUR)	====	172	17.110	17.107 (0.937)		1188779	43.0357 86
* 82 Acenaphthene-d10	====	164	18.255	18.254 (1.000)		1064925	40.0000
* 83 Phenanthrene-d10	====	188	20.723	20.724 (1.000)		1306987	40.0000
\$ 78 Terphenyl-d14 (SUR)	====	244	23.337	23.332 (0.928)		1018999	44.6480 89
63 bis(2-Ethylhexyl)phthalate	====	149	25.058	25.066 (0.996)		89223	1.75653 3.5
* 81 Chrysene-d12	====	240	25.158	25.168 (1.000)		1023146	40.0000
* 84 Perylene-d12	====	264	28.798	28.809 (1.000)		827933	40.0000

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7733.d
Date : 13-APR-2001 04:27
Client ID: MW-141
Sample Info: 266478;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

62

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7733.d (Part 1 of 2)

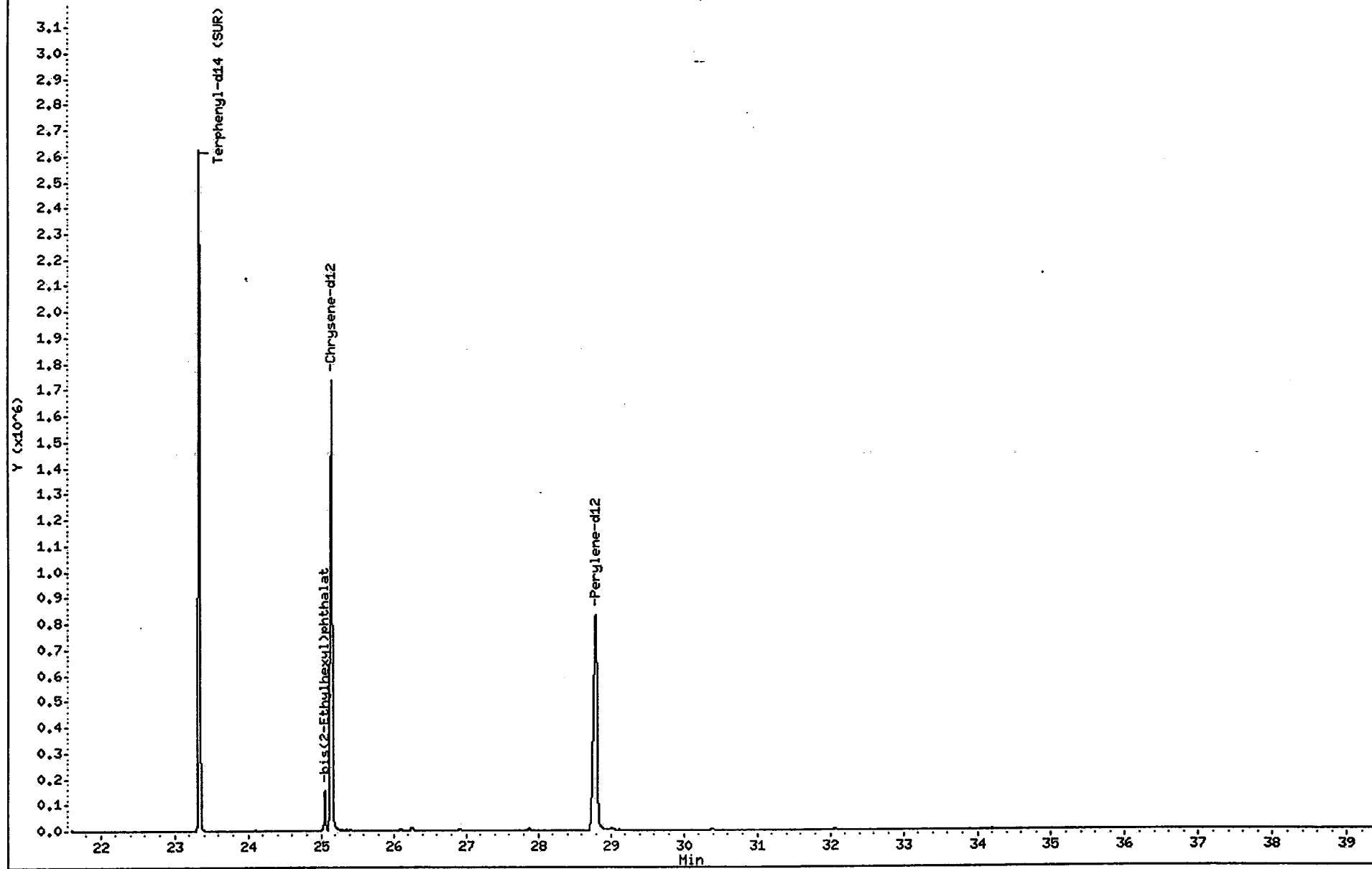


Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7733.d
Date : 13-APR-2001 04:27
Client ID: MW-14I
Sample Info: 266478;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

63

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7733.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7733.d

Date : 13-APR-2001 04:27

Client ID: MW-14I

Instrument: BNAMS3.i

Sample Info: 266478;1000;2;1;;

Purge Volume: 1000.0

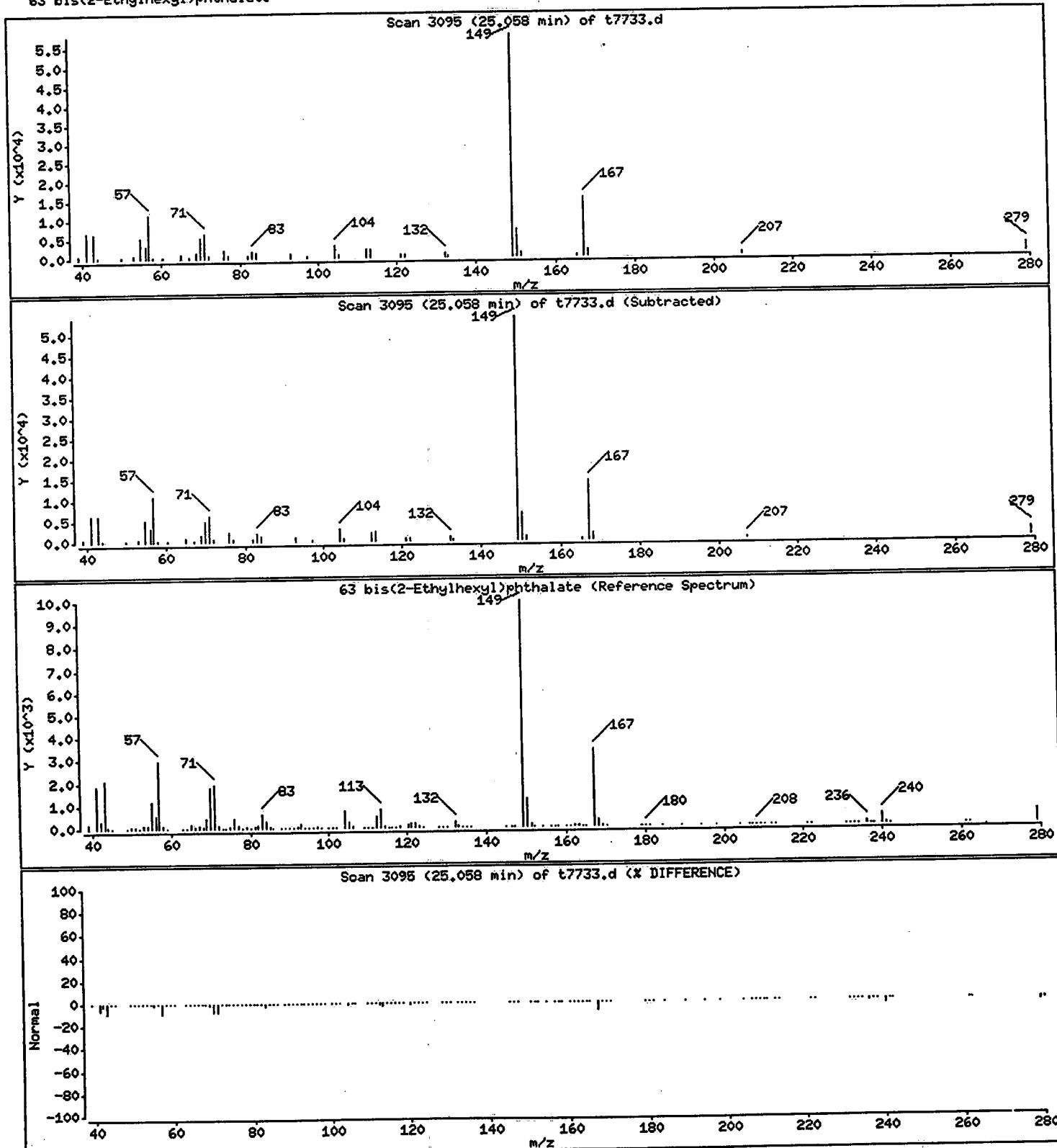
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 3.5 ug/L



Client ID: MW-22
Site: L.E. Carpenter

Lab Sample No: 266479
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/16/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7757.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 20.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
bis(2-Ethylhexyl)phthalate	2400 B	8.8

Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d
Report Date: 17-Apr-2001 12:07

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d
Lab Smp Id: 266479 Client Smp ID: MW-22
Inj Date : 16-APR-2001 19:46
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266479;1000;2;20;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/16apr01.b/bna625b.m
Meth Date : 16-Apr-2001 09:48 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 14
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: J519.sub
Target Version: 3.50
Processing Host: hpdl

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	CONCENTRATIONS					
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.124	13.134 (1.000)	477047	40.0000			
\$ 76 Nitrobenzene-d5 (SUR)	82	14.077	14.098 (0.920)	26263	1.94939	78 (a)		
* 80 Naphthalene-d8	136	15.308	15.316 (1.000)	1517465	40.0000			
\$ 77 2-Fluorobiphenyl (SUR)	172	17.094	17.107 (0.937)	53929	2.08446	83 (a)		
* 82 Acenaphthene-d10	164	18.245	18.253 (1.000)	997414	40.0000			
* 83 Phenanthrene-d10	188	20.714	20.723 (1.000)	1226337	40.0000			
\$ 78 Terphenyl-d14 (SUR)	244	23.313	23.330 (0.927)	44709	2.04260	82 (a)		
63 bis(2-Ethylhexyl)phthalate	149	25.054	25.058 (0.997)	2923191	60.0064	2400 (H)		
* 81 Chrysene-d12	240	25.142	25.166 (1.000)	981244	40.0000			
* 84 Perylene-d12	264	28.775	28.801 (1.000)	873023	40.0000			

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d
Report Date: 17-Apr-2001 12:07

QC Flag Legend

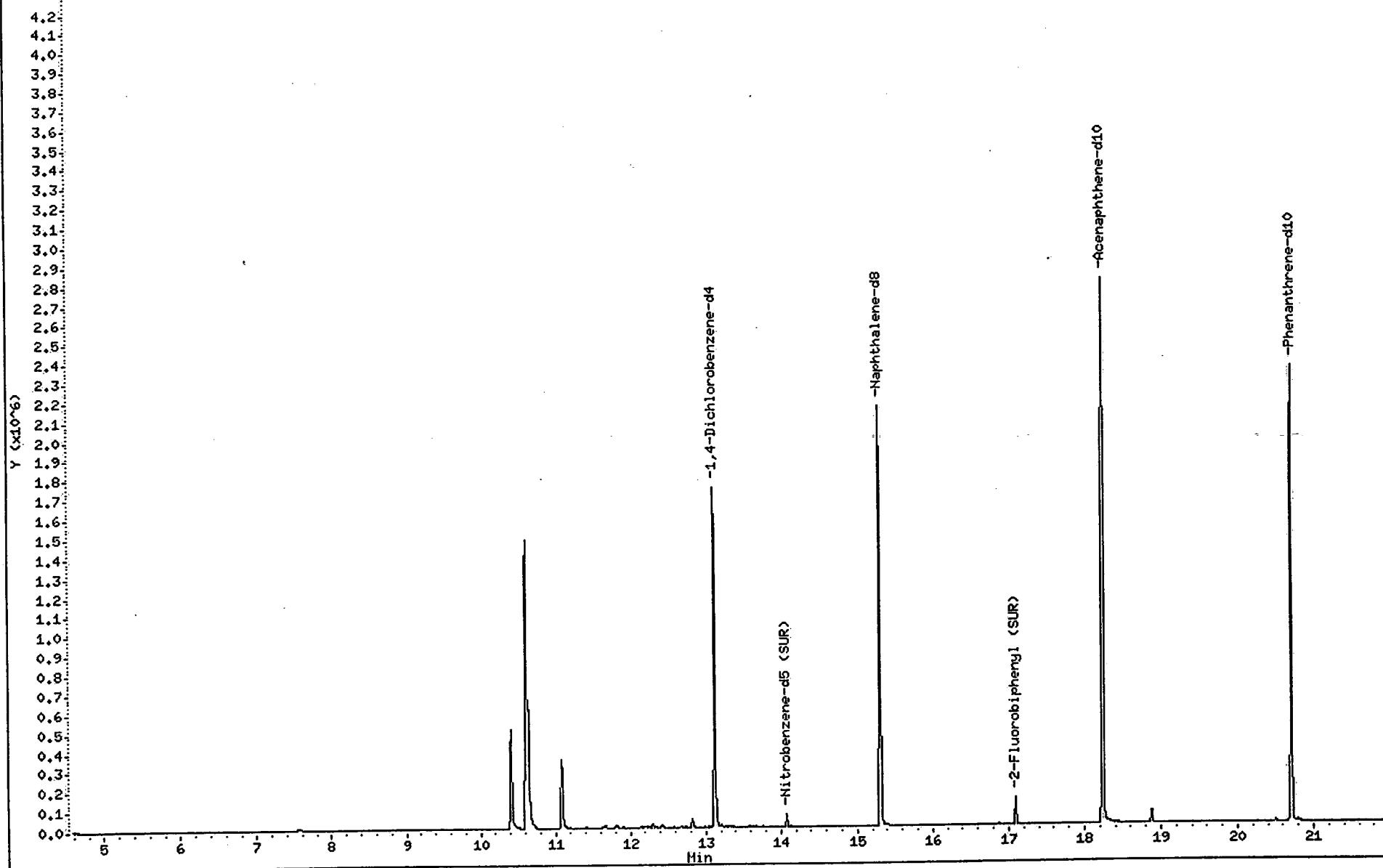
H - Operator selected an alternate compound hit.

Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d
Date : 16-APR-2001 19:46
Client ID: MW-22
Sample Info: 266479;1000;2;20;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

68

/chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d (Part 1 of 2)

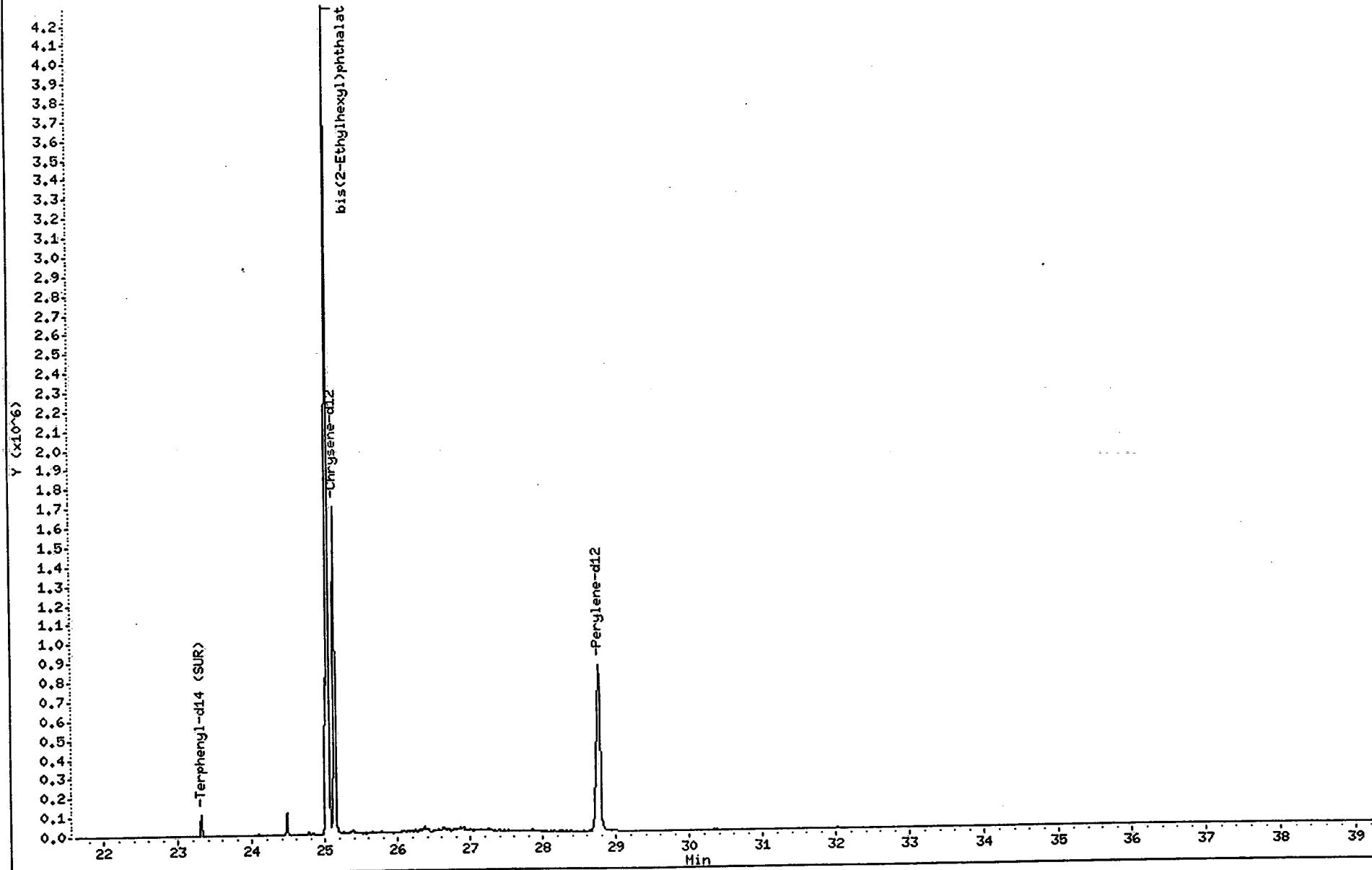


Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d
Date : 16-APR-2001 19:46
Client ID: MW-22
Sample Info: 266479;1000;2;20;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

69

/chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7757.d

Date : 16-APR-2001 19:46

Client ID: MW-22

Instrument: BNAMS3.i

Sample Info: 266479;1000;2;20;;

Purge Volume: 1000.0

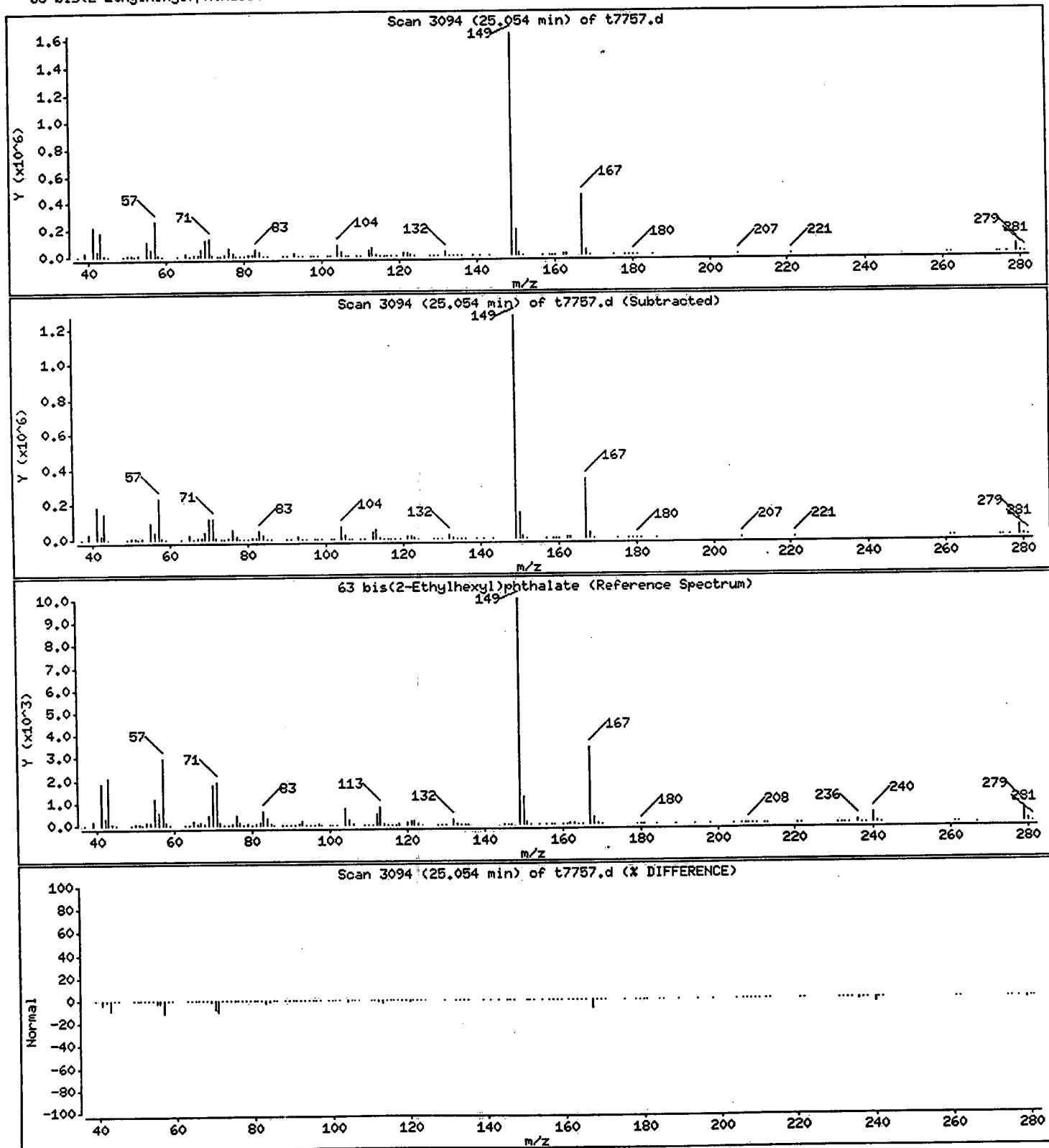
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 2400 ug/L



Client ID: MW-25
Site: L.E. Carpenter

Lab Sample No: 266480
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7735.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 1.4B 0.4

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7735.d
Report Date: 16-Apr-2001 11:07

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7735.d
Lab Smp Id: 266480 Client Smp ID: MW-25
Inj Date : 13-APR-2001 06:04
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266480;1000;2;1;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 23 *em Jr*
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: J519.sub
Target Version: 3.50
Processing Host: hpd1

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

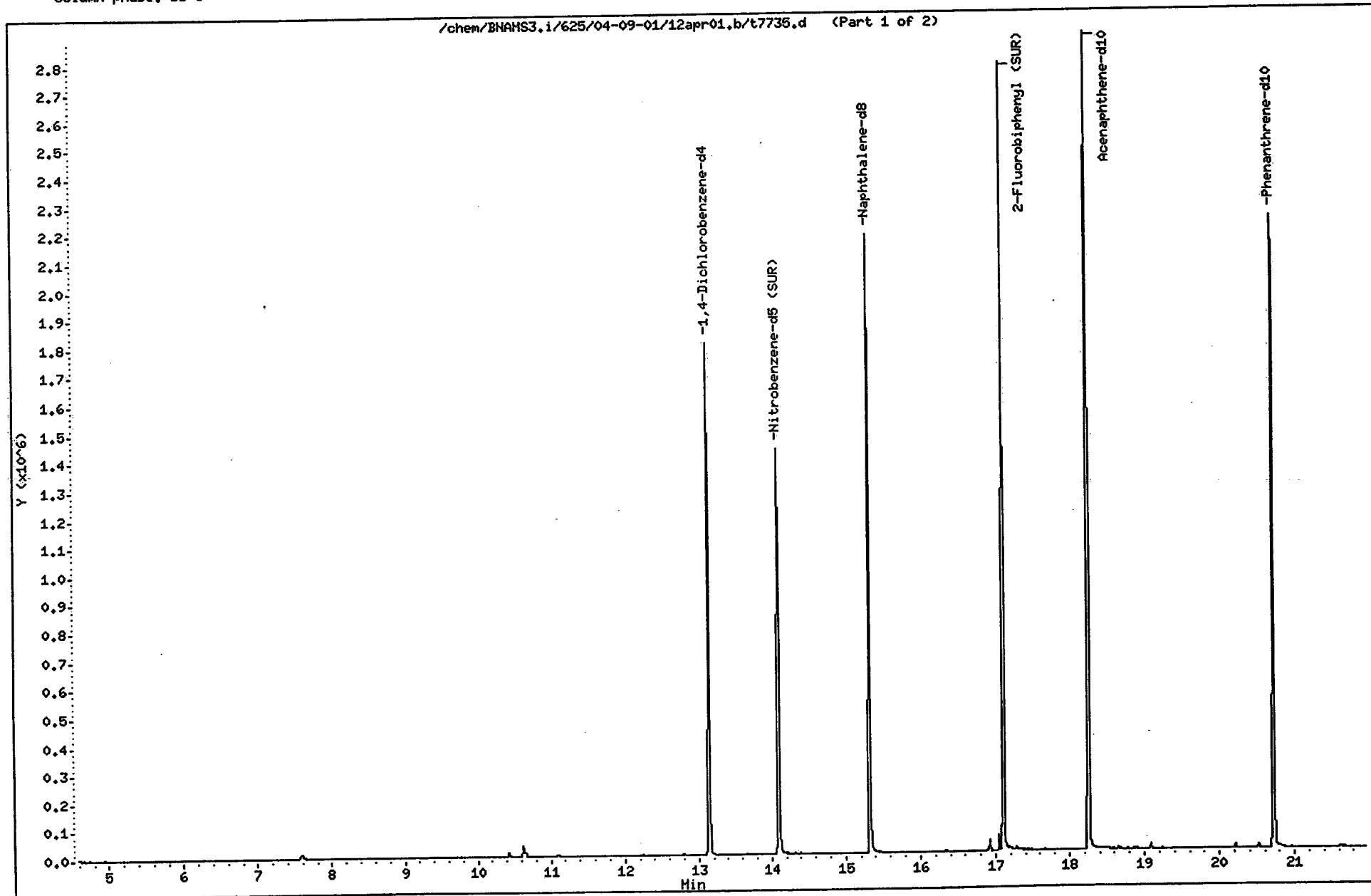
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.140	13.134 (1.000)	486483	40.0000			
\$ 76 Nitrobenzene-d5 (SUR)	82	14.099	14.098 (0.920)	622130	45.6365	91		
* 80 Naphthalene-d8	136	15.323	15.323 (1.000)	1535471	40.0000			
\$ 77 2-Fluorobiphenyl (SUR)	172	17.110	17.107 (0.937)	1086717	42.7204	85		
* 82 Acenaphthene-d10	164	18.255	18.254 (1.000)	980680	40.0000			
* 83 Phenanthrene-d10	188	20.724	20.724 (1.000)	1209514	40.0000			
\$ 78 Terphenyl-d14 (SUR)	244	23.337	23.332 (0.928)	859142	41.3417	83		
63 bis(2-Ethylhexyl)phthalate	149	25.058	25.066 (0.996)	32419	0.70093	1.4		
* 81 Chrysene-d12	240	25.158	25.168 (1.000)	931628	40.0000			
* 84 Perylene-d12	264	28.798	28.809 (1.000)	759362	40.0000			

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7735.d
Date : 13-APR-2001 06:04
Client ID: MW-25
Sample Info: 266480;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7735.d (Part 1 of 2)

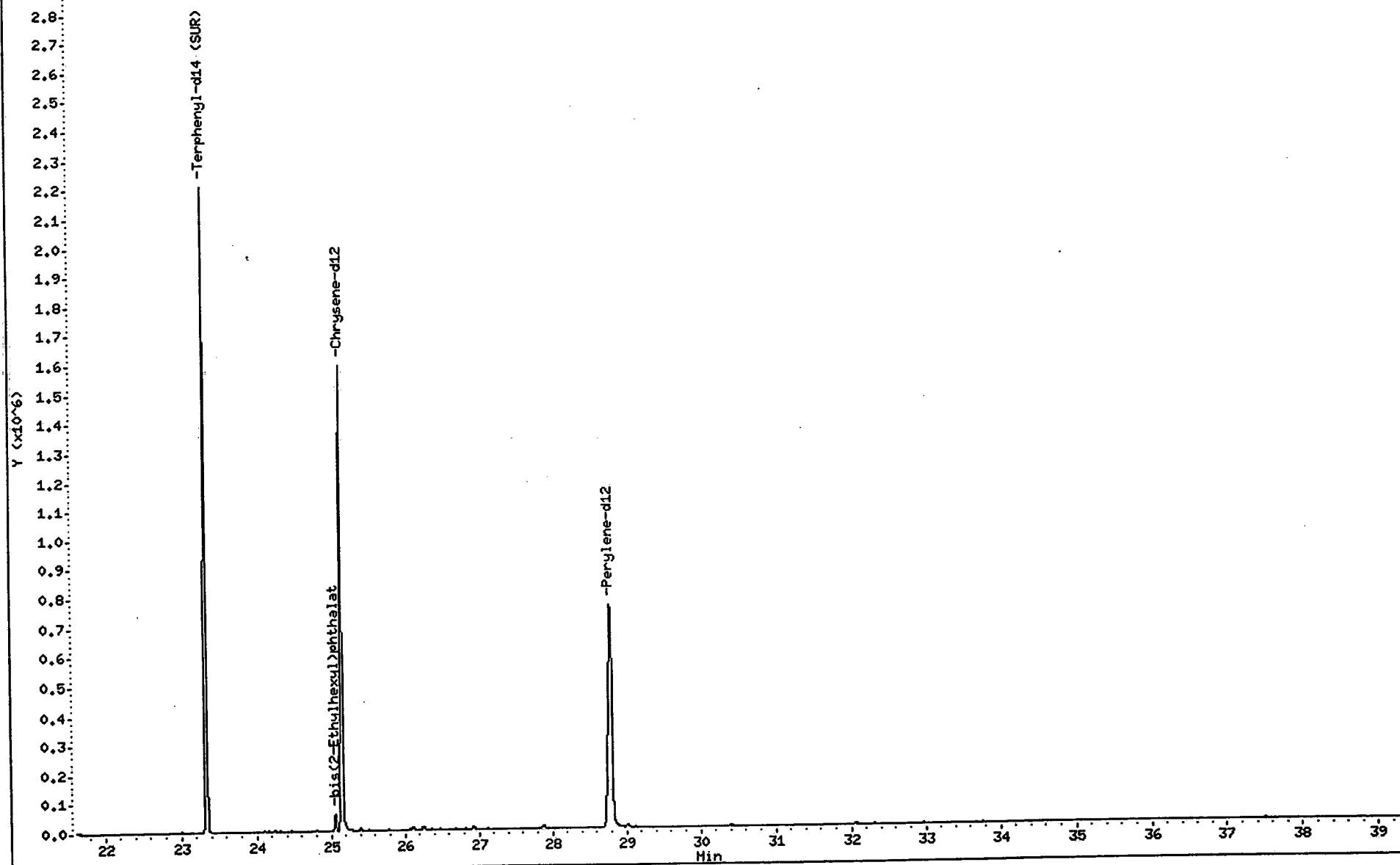


Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7735.d
Date : 13-APR-2001 06:04
Client ID: MW-25
Sample Info: 266480;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

74

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7735.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7735.d

Date : 13-APR-2001 06:04

Client ID: MN-25

Instrument: BNAMS3.i

Sample Info: 266480;1000;2;1;;

Purge Volume: 1000.0

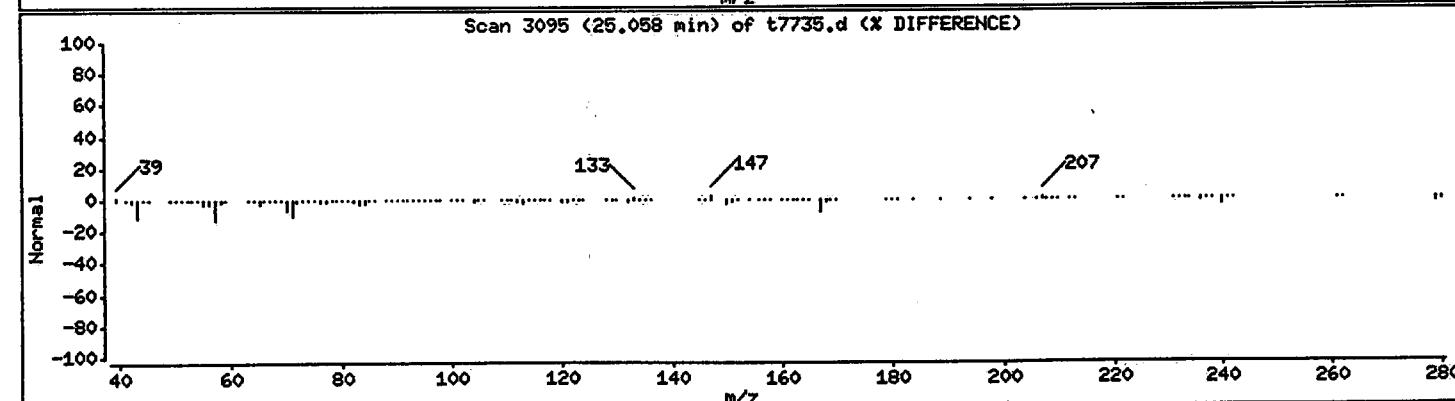
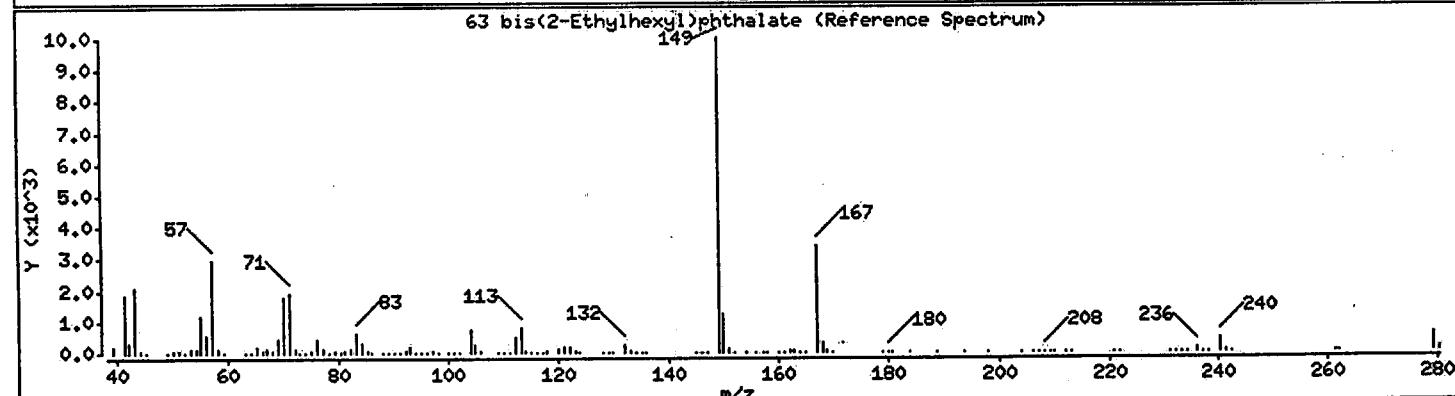
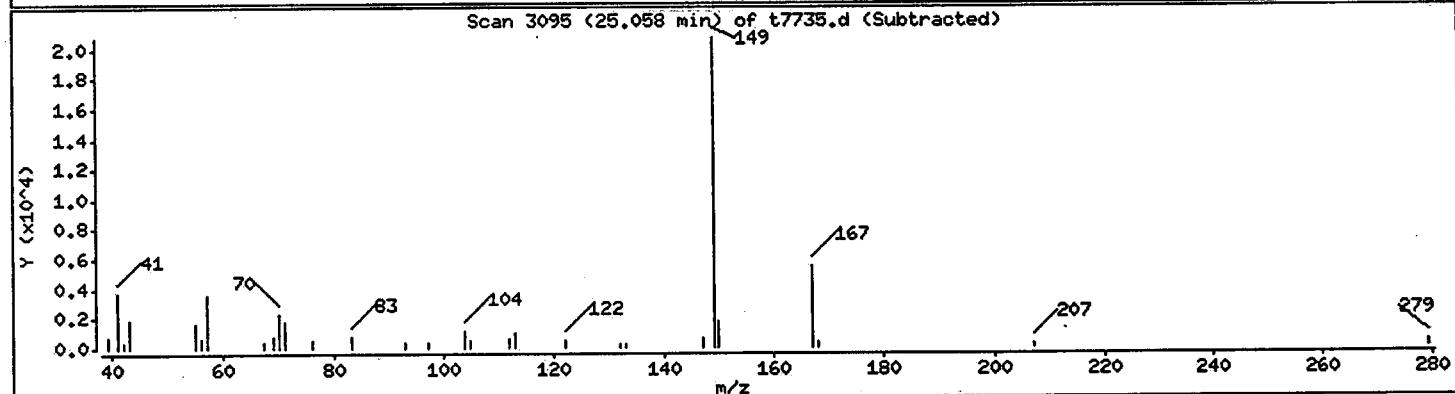
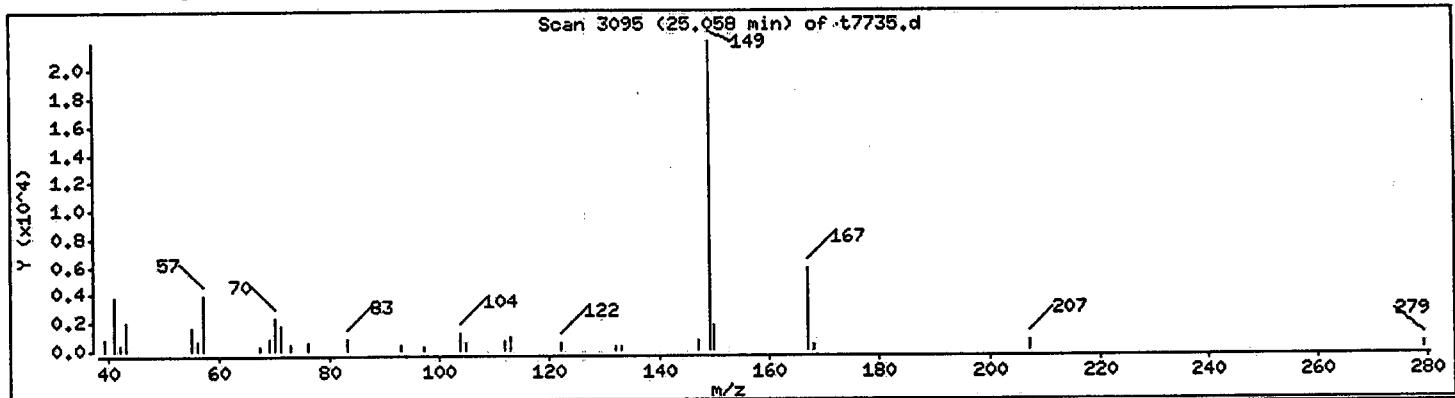
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 1.4 ug/L



Client ID: MW-21
Site: L.E. Carpenter

Lab Sample No: 266481
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7736.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 0.9B 0.4

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7736.d
Report Date: 16-Apr-2001 11:07

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7736.d
Lab Smp Id: 266481 Client Smp ID: MW-21
Inj Date : 13-APR-2001 06:53
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266481;1000;2;1;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: hpdl
Compound Sublist: J519.sub

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.139	13.134	(1.000)	495352	40.0000		
\$ 76 Nitrobenzene-d5 (SUR)	82	14.099	14.098	(0.920)	635328	46.7704	94	
* 80 Naphthalene-d8	136	15.323	15.323	(1.000)	1530031	40.0000		
\$ 77 2-Fluorobiphenyl (SUR)	172	17.110	17.107	(0.937)	1115855	43.6660	87	
* 82 Acenaphthene-d10	164	18.255	18.254	(1.000)	985168	40.0000		
* 83 Phenanthrene-d10	188	20.723	20.724	(1.000)	1235596	40.0000		
\$ 78 Terphenyl-d14 (SUR)	244	23.337	23.332	(0.928)	921118	43.5042	87	
63 bis(2-Ethylhexyl)phthalate	149	25.057	25.066	(0.996)	21643	0.45929	0.92	
* 81 Chrysene-d12	240	25.150	25.168	(1.000)	949181	40.0000		
* 84 Perylene-d12	264	28.790	28.809	(1.000)	763426	40.0000		

Data File: /chem/BNAHS3.i/625/04-09-01/12apr01.b/t7736.d
Date : 13-APR-2001 06:53

Client ID: MU-24

Sample Info: 266481;1000;2;1;;

Purge Volume: 1000.0

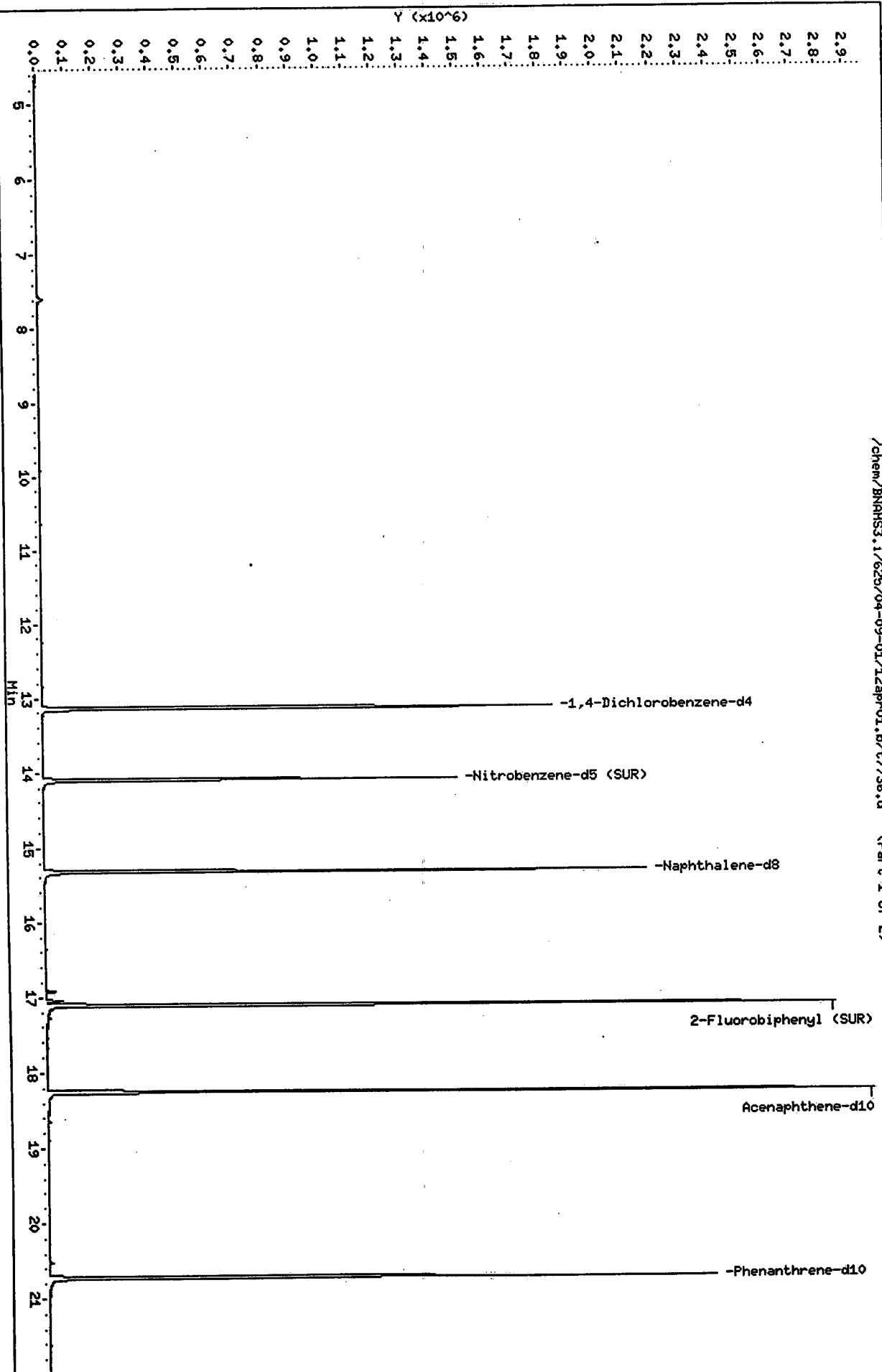
Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1

Column diameter: 0.53

/chem/BNAHS3.i/625/04-09-01/12apr01.b/t7736.d (Part 1 of 2)

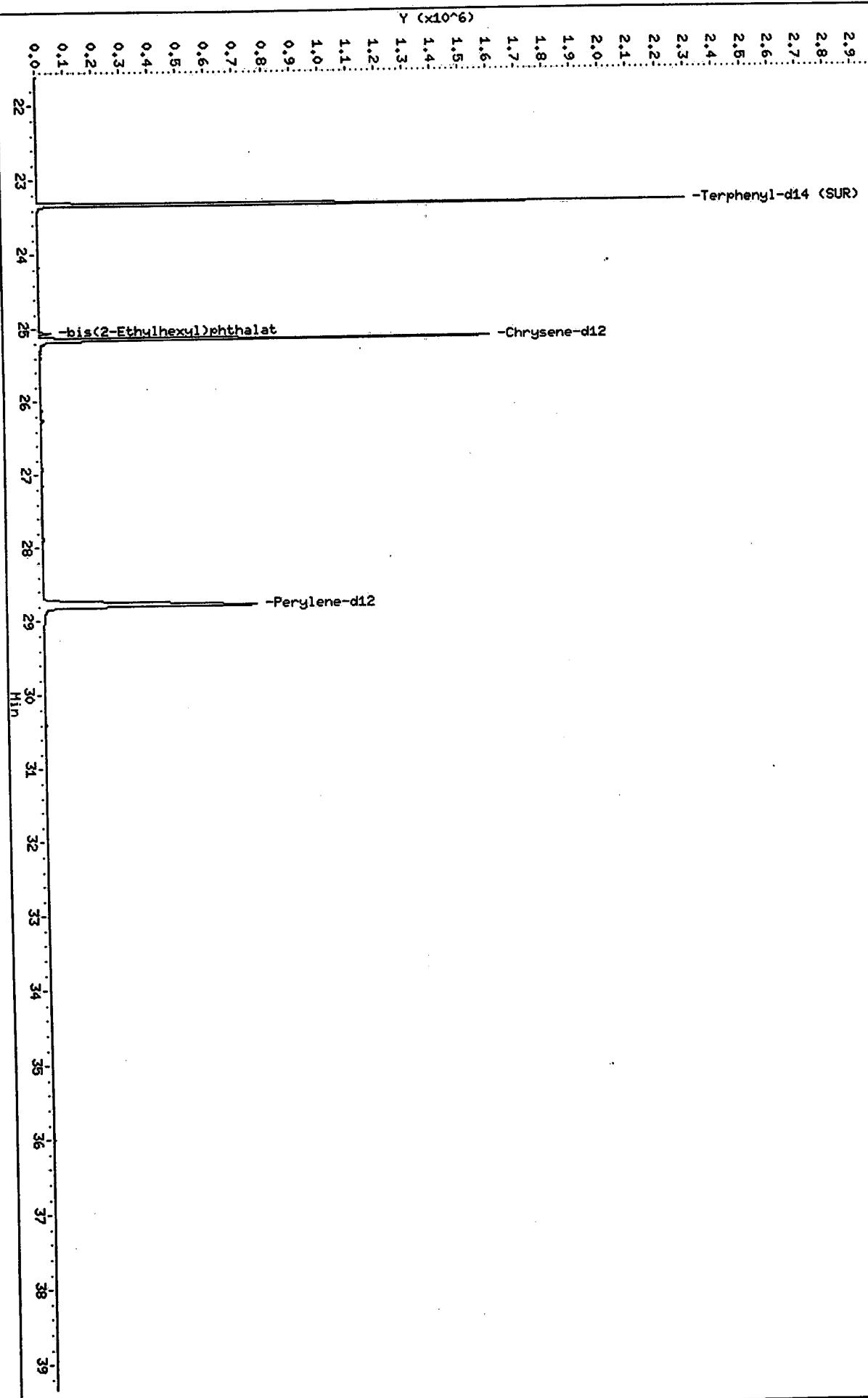


Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7736.d
Date : 13-APR-2001 06:53
Client ID: MU-21

Sample Info: 2664B1;1000;2;1;
Purge Volume: 1000.0
Column Phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7736.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7736.d

Date : 13-APR-2001 06:53

Client ID: MW-21

Instrument: BNAMS3.i

Sample Info: 266481;1000;2;1;;

Purge Volume: 1000.0

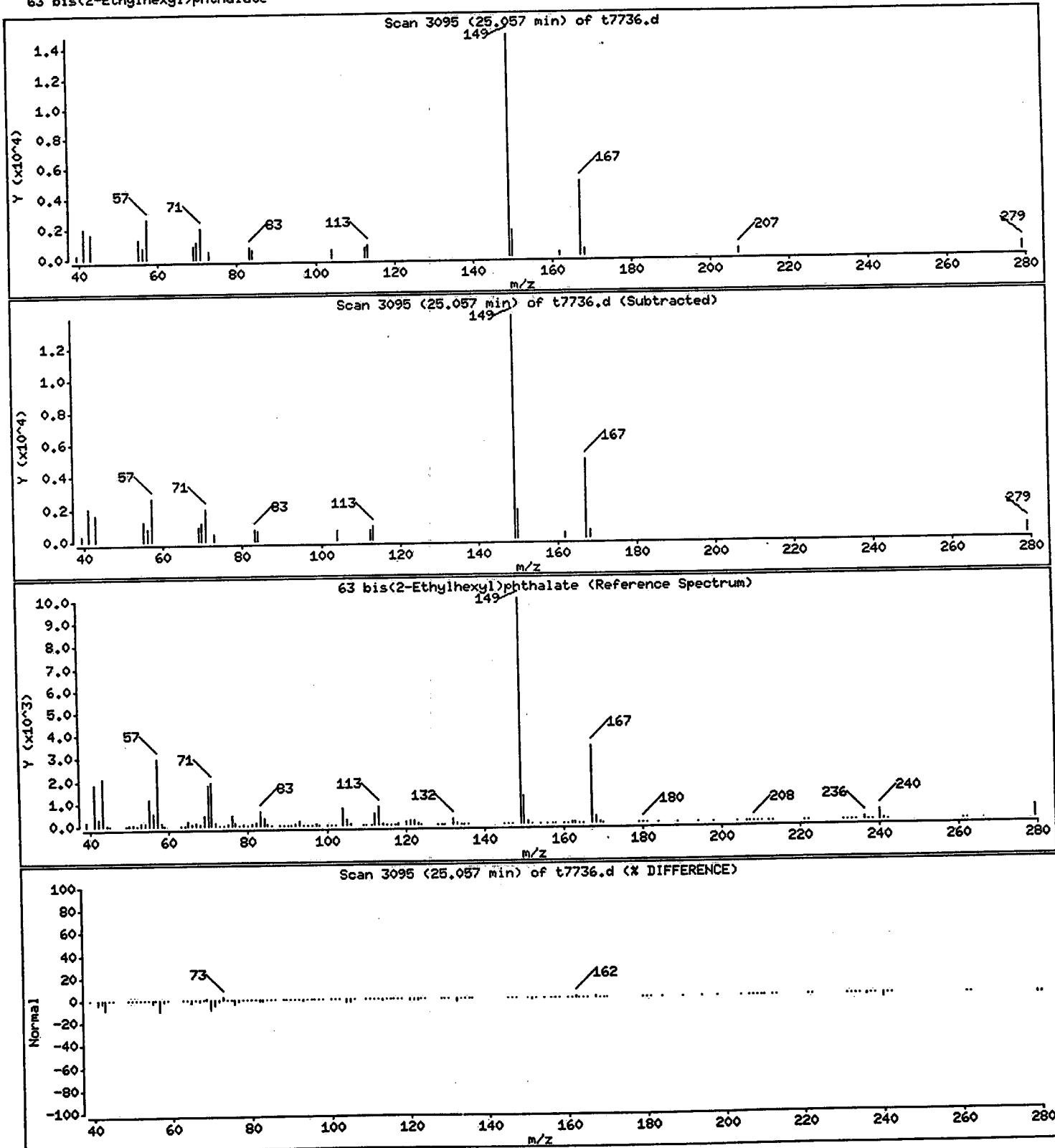
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 0.92 ug/L



Client ID: Field_Blank
Site: L.E. Carpenter

Lab Sample No: 266484
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Extracted: 04/06/01
Date Analyzed: 04/13/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7737.d

Matrix: WATER
Level: LOW
Sample Volume: 970 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

bis(2-Ethylhexyl)phthalate 2.0B 0.5

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7737.d
Report Date: 16-Apr-2001 11:07

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7737.d
Lab Smp Id: 266484 Client Smp ID: Field_Blank
Inj Date : 13-APR-2001 07:42
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : 266484;970;2;1;;
Misc Info : J519;SPECIALBN;6257;143
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/12apr01.b/bna625b.m
Meth Date : 16-Apr-2001 08:10 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: J519.sub
Target Version: 3.50
Processing Host: hpdl

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	970.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/L)
* 79 1,4-Dichlorobenzene-d4	152	13.139	13.134	(1.000)	480197	40.0000		
\$ 76 Nitrobenzene-d5 (SUR)	82	14.099	14.098	(0.920)	613396	46.2871	95	
* 80 Naphthalene-d8	136	15.316	15.323	(1.000)	1492636	40.0000		
\$ 77 2-Fluorobiphenyl (SUR)	172	17.110	17.107	(0.937)	1156139	45.7725	94	
* 82 Acenaphthene-d10	164	18.256	18.254	(1.000)	973759	40.0000		
* 83 Phenanthrene-d10	188	20.724	20.724	(1.000)	1190847	40.0000		
\$ 78 Terphenyl-d14 (SUR)	244	23.337	23.332	(0.928)	989856	47.2661	97	
63 bis(2-Ethylhexyl)phthalate	149	25.058	25.066	(0.996)	45265	0.97116	2.0	
* 81 Chrysene-d12	240	25.151	25.168	(1.000)	938832	40.0000		
* 84 Perylene-d12	264	28.791	28.809	(1.000)	776861	40.0000		

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7737.d

Date : 13-APR-2001 07:42

Client ID: Field_Blank

Sample Info: 266484;970;2;1;;

Purge Volume: 970.0

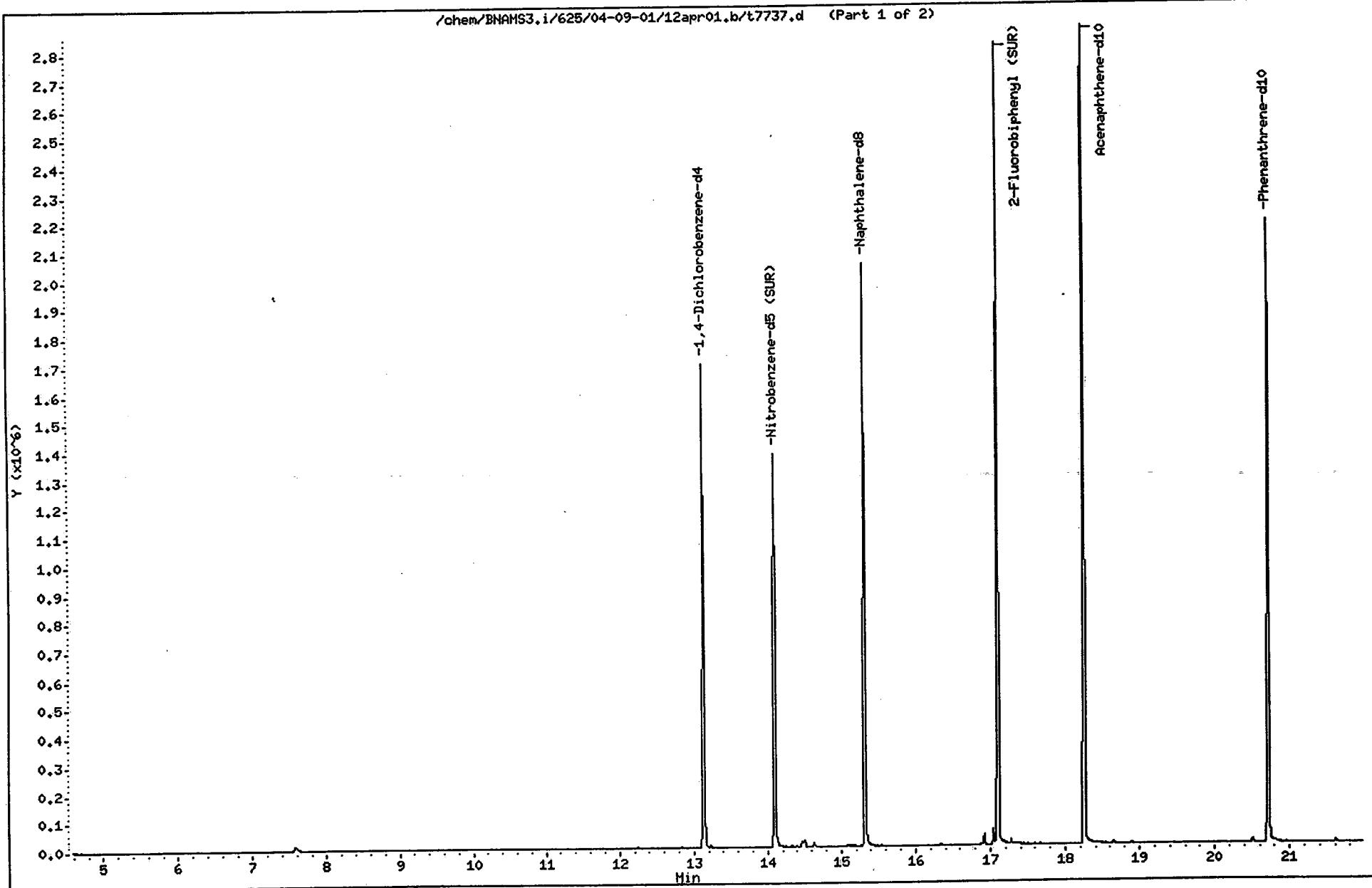
Column phase: DB-5

Instrument: BNAMS3.i

Operator: BNAMS 1

Column diameter: 0.53

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7737.d (Part 1 of 2)

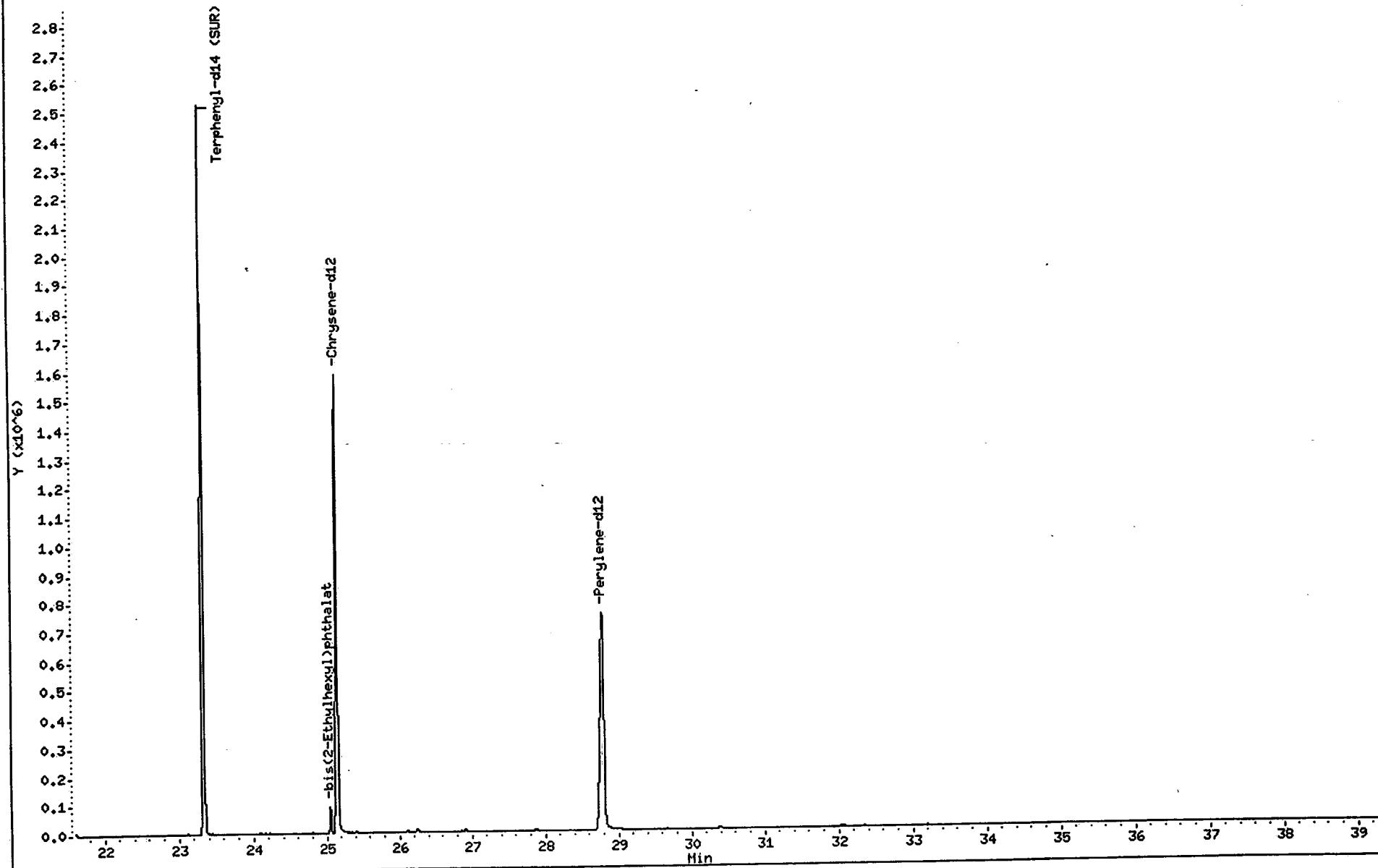


Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7737.d
Date : 13-APR-2001 07:42
Client ID: Field_Blank
Sample Info: 266484;970;2;1;;
Purge Volume: 970.0
Column phase: DB-5

Instrument: BNAMS3.i
Operator: BNAMS 1
Column diameter: 0.53

84

/chem/BNAMS3.i/625/04-09-01/12apr01.b/t7737.d (Part 2 of 2)



Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7737.d

Date : 13-APR-2001 07:42

Client ID: Field_Blank

Instrument: BNAMS3.i

Sample Info: 266484;970;2;1;;

Purge Volume: 970.0

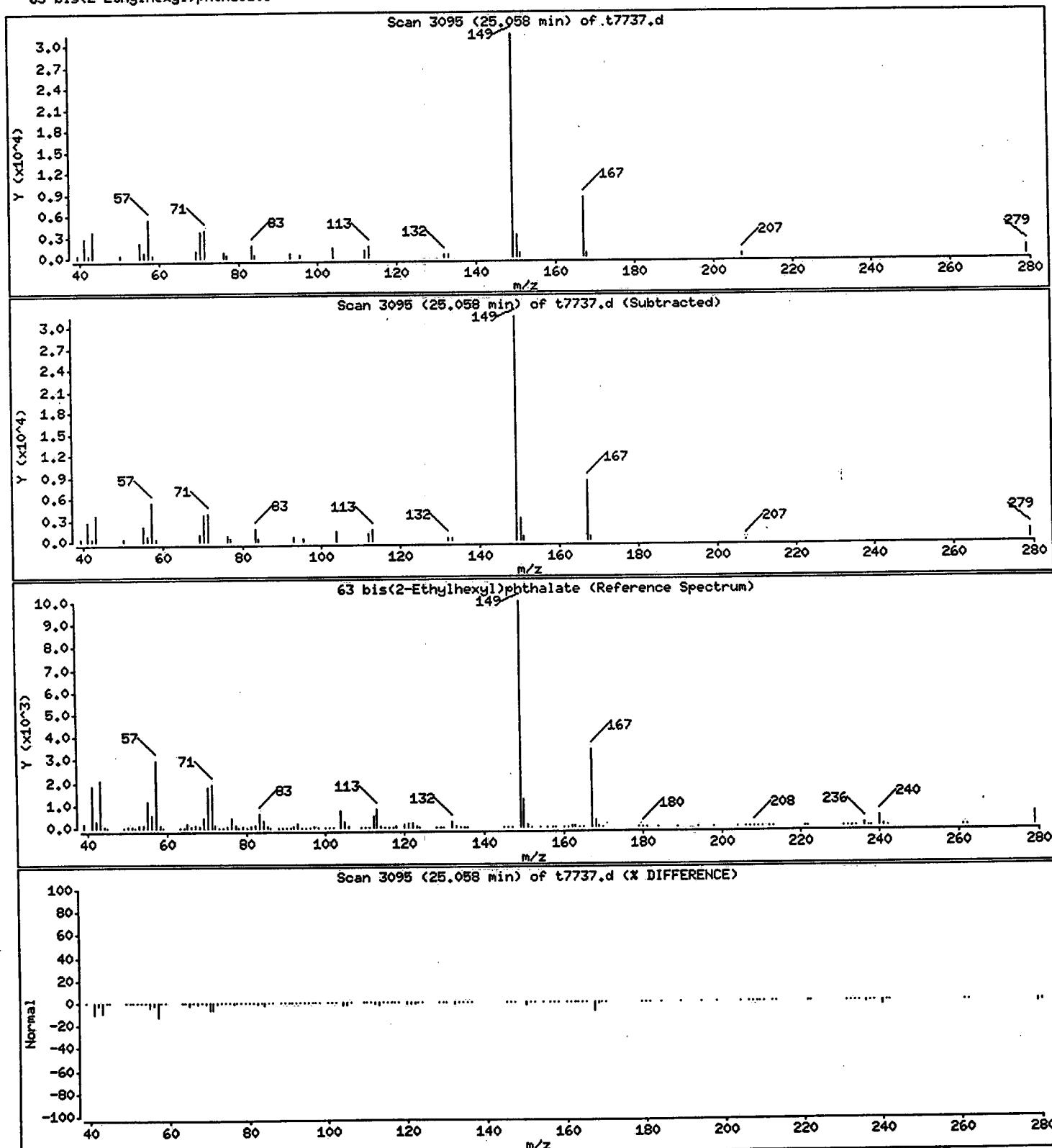
Operator: BNAMS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 2.0 ug/L



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T7620

DFTPP Injection Date: 04/09/01

Instrument ID: BNAMS3

DFTPP Injection Time: 0946

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	77.9
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	53.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	14.8
365	Greater than 1.0% of mass 198	1.35
441	0.0 - 100.0% of mass 443	8.3 (71.0)2
442	40.0 - 110.0% of mass 198	58.1
443	17.0 - 23.0% of mass 442	11.6 (20.0)3

1-Value is % mass 69

2-Value is % mass 443

3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 TSTD050	TSTD050	T7621	04/09/01	1008
02 TSTD010	TSTD010	T7622	04/09/01	1057
03 TSTD120	TSTD120	T7623	04/09/01	1145
04 TSTD080	TSTD080	T7624	04/09/01	1234
05 TSTD020	TSTD020	T7625	04/09/01	1324
06 WB096	WB096	T7628	04/09/01	1552
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				

Data File: /chem/BNAMS3.i/625/04-09-01/09apr01.b/t7620.d

Date : 09-APR-2001 09:46

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT099

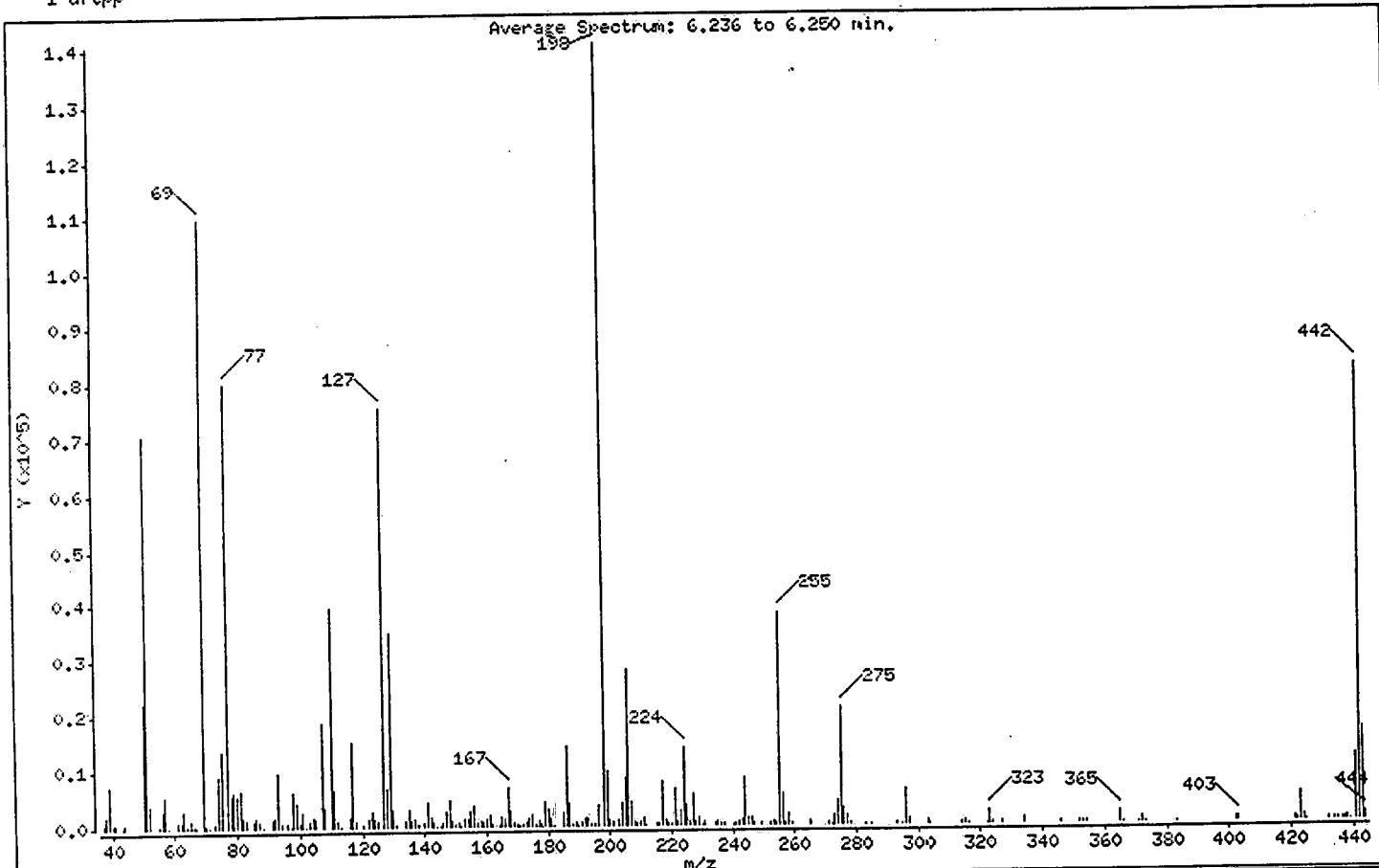
Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp

Average Spectrum: 6.236 to 6.250 min.



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	50.09
68	Less than 2.00% of mass 69	0.00 (< 0.00)
69	Mass 69 relative abundance	77.88
70	Less than 2.00% of mass 69	0.13 (< 0.17)
127	40.00 - 60.00% of mass 198	53.46
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 30.00% of mass 198	14.83
365	Greater than 1.00% of mass 198	1.35
441	0.01 - 100.00% of mass 443	8.27 (< 71.01)
442	40.00 - 110.00% of mass 198	58.11
443	17.00 - 23.00% of mass 442	11.65 (< 20.04)

Data File: /chem/BNAMS3.i/625/04-09-01/09apr01.b/t7620.d

Date : 09-APR-2001 09:46

Instrument: BNAMS3.i

Client ID:

Sample Info: TDFT099

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t7620.d

Spectrum: Average Spectrum: 6.236 to 6.250 min.

Location of Maximum: 198.00

Number of points: 235

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	521	117.00	15076	185.00	2132	255.00	38248
38.00	1931	118.00	1059	186.00	14082	256.00	5628
39.00	7516	120.00	255	187.00	4019	257.00	426
40.00	553	122.00	1269	188.00	344	258.00	2066
41.00	515	123.00	2641	189.00	698	259.00	247
43.00	129	124.00	1272	190.00	136	265.00	715
44.00	548	125.00	997	191.00	579	271.00	232
50.00	22352	127.00	75272	192.00	1171	272.00	112
51.00	70536	128.00	6958	193.00	1231	273.00	1622
52.00	3838	129.00	34856	194.00	371	274.00	4171
55.00	430	130.00	3039	195.00	215	275.00	29888
56.00	2764	131.00	407	196.00	3576	276.00	2999
57.00	5385	134.00	1048	198.00	140800	277.00	1483
58.00	128	135.00	2763	199.00	9838	278.00	217
61.00	939	136.00	970	200.00	926	283.00	142
62.00	1950	137.00	1173	201.00	761	285.00	144
63.00	2925	138.00	203	203.00	1051	293.00	409
64.00	255	140.00	552	204.00	3913	295.00	155
65.00	1352	141.00	4337	205.00	8408	296.00	6082
66.00	283	142.00	1642	206.00	28304	297.00	921
67.00	128	143.00	742	207.00	4091	303.00	739
69.00	109664	144.00	113	208.00	692	304.00	114
70.00	185	145.00	124	209.00	386	314.00	263
71.00	107	146.00	658	210.00	524	315.00	708
73.00	602	147.00	2502	211.00	1217	316.00	159
74.00	9055	148.00	4515	212.00	112	322.00	101
75.00	13597	149.00	833	215.00	461	323.00	2111
77.00	79816	150.00	248	216.00	293	324.00	316
78.00	5392	151.00	741	217.00	7736	327.00	378
79.00	6200	152.00	123	218.00	915	334.00	986
80.00	5472	153.00	1360	219.00	348	346.00	271
81.00	6335	154.00	1339	220.00	392	352.00	374
82.00	1644	155.00	2643	221.00	6578	353.00	275
83.00	1240	156.00	3634	222.00	712	354.00	316
85.00	1067	157.00	783	223.00	2503	365.00	1903

Date : 09-APR-2001 09:46

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT099

Operator: BNAA2

Column phase: DB-5

Column diameter: 0.25

Data File: t7620.d

Spectrum: Average Spectrum; 6.236 to 6.250 min.

Location of Maximum: 198.00

Number of points: 235

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	1721	158.00	1101	224.00	13815	366.00	110
87.00	941	159.00	545	225.00	3559	371.00	108
88.00	119	160.00	1348	226.00	492	372.00	951
91.00	1377	161.00	1968	227.00	5610	373.00	116
92.00	1547	162.00	438	228.00	735	383.00	112
93.00	9581	164.00	115	229.00	1174	402.00	494
94.00	526	165.00	1497	230.00	113	403.00	668
96.00	522	166.00	1171	231.00	536	421.00	686
97.00	130	167.00	6730	234.00	256	422.00	246
98.00	6212	168.00	2646	235.00	527	423.00	4713
99.00	4286	169.00	564	236.00	268	424.00	845
100.00	487	170.00	280	237.00	200	425.00	101
101.00	2575	171.00	112	240.00	101	432.00	243
102.00	160	172.00	425	241.00	270	434.00	348
103.00	972	173.00	603	242.00	674	435.00	253
104.00	1591	174.00	1303	243.00	903	436.00	447
105.00	1292	175.00	2052	244.00	8472	437.00	192
107.00	18840	176.00	360	245.00	1296	438.00	590
108.00	3095	177.00	939	246.00	1229	439.00	134
110.00	39328	178.00	350	247.00	254	441.00	11647
111.00	6539	179.00	4291	249.00	304	442.00	81832
112.00	816	180.00	2757	252.00	421	443.00	16400
113.00	121	181.00	1410	253.00	512	444.00	1336
116.00	1486	182.00	123	254.00	303		

Data File: /chem/BNAMS3.i/625/04-09-01/09apr01.b/t7620.d

Date : 09-APR-2001 09:46

Client ID:

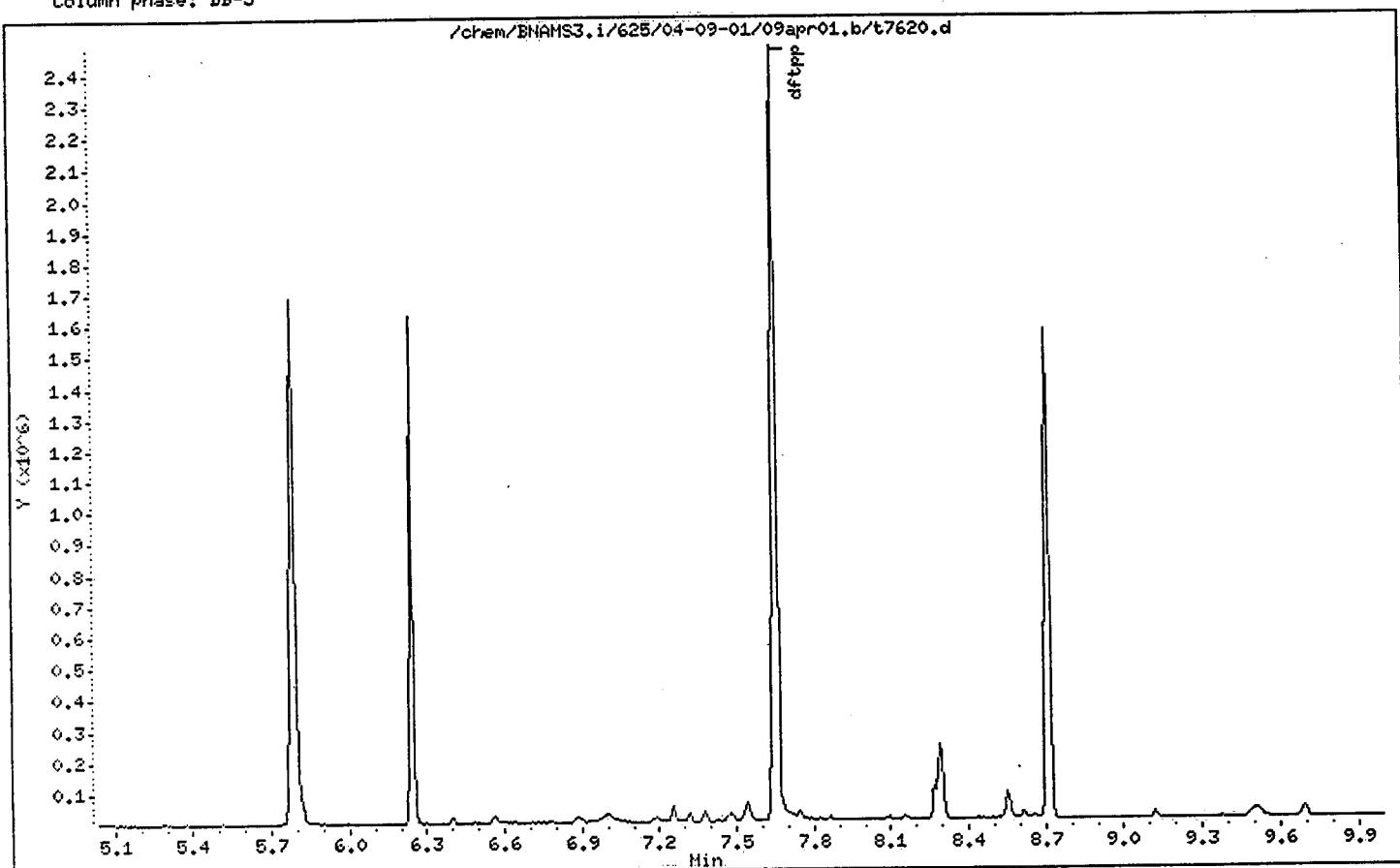
Instrument: BNAMS3.i

Sample Info: TDFT099

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T7712

DFTPP Injection Date: 04/12/01

Instrument ID: BNAMS3

DFTPP Injection Time: 1102

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	69.4
70	Less than 2.0% of mass 69	0.5 (0.7)1
127	40.0 - 60.0% of mass 198	49.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	14.7
365	Greater than 1.0% of mass 198	1.68
441	0.0 - 100.0% of mass 443	10.5 (82.4)2
442	40.0 - 110.0% of mass 198	66.7
443	17.0 - 23.0% of mass 442	12.7 (19.1)3

1-Value is % mass 69

2-Value is % mass 443

3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 TSTD102	TSTD102	T7713	04/12/01	1123
02 MW-15I	266473	T7728	04/13/01	0024
03 MW-15S	266474	T7729	04/13/01	0113
04 MW-17S	266475	T7730	04/13/01	0201
05 MW-11DR	266476	T7731	04/13/01	0250
06 MW-14I	266478	T7733	04/13/01	0427
07 MW-25	266480	T7735	04/13/01	0604
08 MW-21	266481	T7736	04/13/01	0653
09 FIELD_BLANK	266484	T7737	04/13/01	0742
10				
11				
12				
13				
14				
15				
16				
17				
18				

Data File: /chem/BNAHS3.i/625/04-09-01/12apr01.b/t7712.d

Date : 12-APR-2001 11:02

Client ID:

Instrument: BNAHS3.i

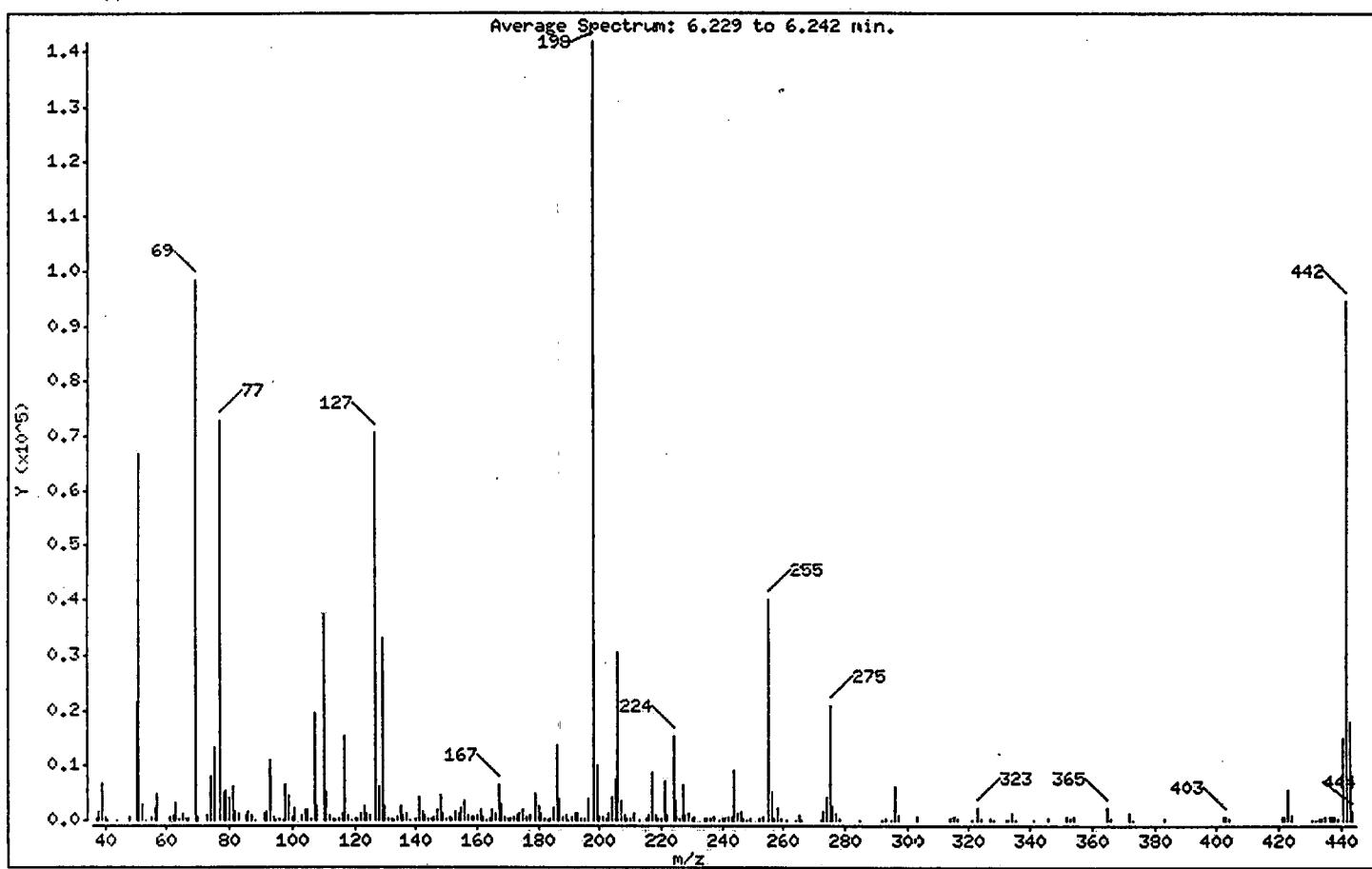
Sample Info: TDFT102

Column phase: DB-5

1 dftpp

Operator: BNA2

Column diameter: 0.25



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	47.16
68	Less than 2.00% of mass 69	0.00 < 0.00
69	Mass 69 relative abundance	69.40
70	Less than 2.00% of mass 69	0.46 < 0.66
127	40.00 - 60.00% of mass 198	49.87
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.10
275	10.00 - 30.00% of mass 198	14.73
365	Greater than 1.00% of mass 198	1.68
441	0.01 - 100.00% of mass 443	10.49 < 82.39
442	40.00 - 110.00% of mass 198	66.69
443	17.00 - 23.00% of mass 442	12.74 < 19.10

Date : 12-APR-2001 11:02

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT102

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t7712.d

Spectrum: Average Spectrum: 6.229 to 6.242 min.

Location of Maximum: 198.00

Number of points: 251

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	455	119.00	108	185.00	2164	258.00	2269
38.00	1684	120.00	232	186.00	13819	259.00	241
39.00	6842	121.00	194	187.00	4028	261.00	105
40.00	693	122.00	1178	188.00	494	264.00	108
41.00	142	123.00	2612	189.00	874	265.00	1109
44.00	105	124.00	1178	190.00	108	266.00	132
48.00	506	125.00	949	191.00	582	272.00	116
50.00	21392	127.00	70640	192.00	1371	273.00	1575
51.00	66808	128.00	6109	193.00	1437	274.00	4139
52.00	3919	129.00	33104	194.00	344	275.00	20864
53.00	123	130.00	2719	195.00	409	276.00	2503
55.00	494	131.00	382	196.00	3977	277.00	1407
56.00	2307	132.00	413	198.00	141632	278.00	255
57.00	4813	133.00	119	199.00	10062	285.00	140
61.00	711	134.00	576	200.00	792	292.00	105
62.00	1087	135.00	2495	201.00	616	293.00	297
63.00	3106	136.00	1014	202.00	239	295.00	117
64.00	370	137.00	1186	203.00	1181	296.00	6143
65.00	1155	138.00	159	204.00	4395	297.00	836
66.00	165	140.00	390	205.00	7641	303.00	789
67.00	236	141.00	4189	206.00	30696	314.00	314
69.00	98304	142.00	1466	207.00	3589	315.00	737
70.00	652	143.00	987	208.00	1009	316.00	402
73.00	1977	144.00	171	209.00	263	321.00	124
74.00	8147	145.00	321	210.00	398	323.00	2174
75.00	13339	146.00	642	211.00	1321	324.00	203
77.00	72936	147.00	2005	213.00	119	327.00	254
78.00	5278	148.00	4719	215.00	420	328.00	121
79.00	5625	149.00	1203	216.00	951	332.00	139
80.00	4350	150.00	468	217.00	8930	333.00	114
81.00	6214	151.00	688	218.00	1112	334.00	1243
82.00	1472	152.00	331	219.00	427	335.00	102
83.00	1275	153.00	1506	220.00	281	341.00	100
85.00	835	154.00	1153	221.00	7211	346.00	228
86.00	1665	155.00	2378	222.00	843	352.00	605

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7712.d

Date : 12-APR-2001 11:02

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT102

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t7712.d

Spectrum: Average Spectrum: 6.229 to 6.242 min.

Location of Maximum: 198.00

Number of points: 251

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	859 156.00	3599 224.00	15371 353.00	453			
88.00	123 157.00	863 225.00	3728 354.00	697			
91.00	1285 158.00	797 226.00	222 365.00	2375			
92.00	1633 159.00	502 227.00	6432 366.00	278			
93.00	11906 160.00	1115 228.00	966 372.00	1166			
94.00	598 161.00	1872 229.00	1177 373.00	130			
95.00	138 162.00	502 230.00	270 383.00	242			
96.00	353 163.00	137 231.00	655 402.00	547			
97.00	135 164.00	247 234.00	217 403.00	632			
98.00	6453 165.00	1848 235.00	353 404.00	177			
99.00	4644 166.00	1253 236.00	334 421.00	511			
100.00	612 167.00	6451 237.00	570 422.00	756			
101.00	2370 168.00	2919 239.00	130 423.00	5534			
103.00	875 169.00	692 240.00	445 424.00	1061			
104.00	2035 170.00	298 241.00	194 431.00	105			
105.00	1821 171.00	282 242.00	753 432.00	121			
106.00	190 172.00	652 243.00	597 433.00	260			
107.00	19496 173.00	1053 244.00	8980 434.00	309			
108.00	2737 174.00	1349 245.00	1440 435.00	602			
110.00	37544 175.00	2076 246.00	1666 436.00	623			
111.00	5335 176.00	624 247.00	278 437.00	615			
112.00	890 177.00	1044 248.00	101 438.00	523			
113.00	335 179.00	4752 249.00	388 439.00	373			
114.00	145 180.00	2582 252.00	285 441.00	14867			
115.00	228 181.00	1240 253.00	513 442.00	94464			
116.00	1433 182.00	213 255.00	40200 443.00	18040			
117.00	15319 183.00	112 256.00	5364 444.00	1626			
118.00	1972 184.00	232 257.00	365				

Data File: /chem/BNAMS3.i/625/04-09-01/12apr01.b/t7712.d

Date : 12-APR-2001 11:02

Client ID:

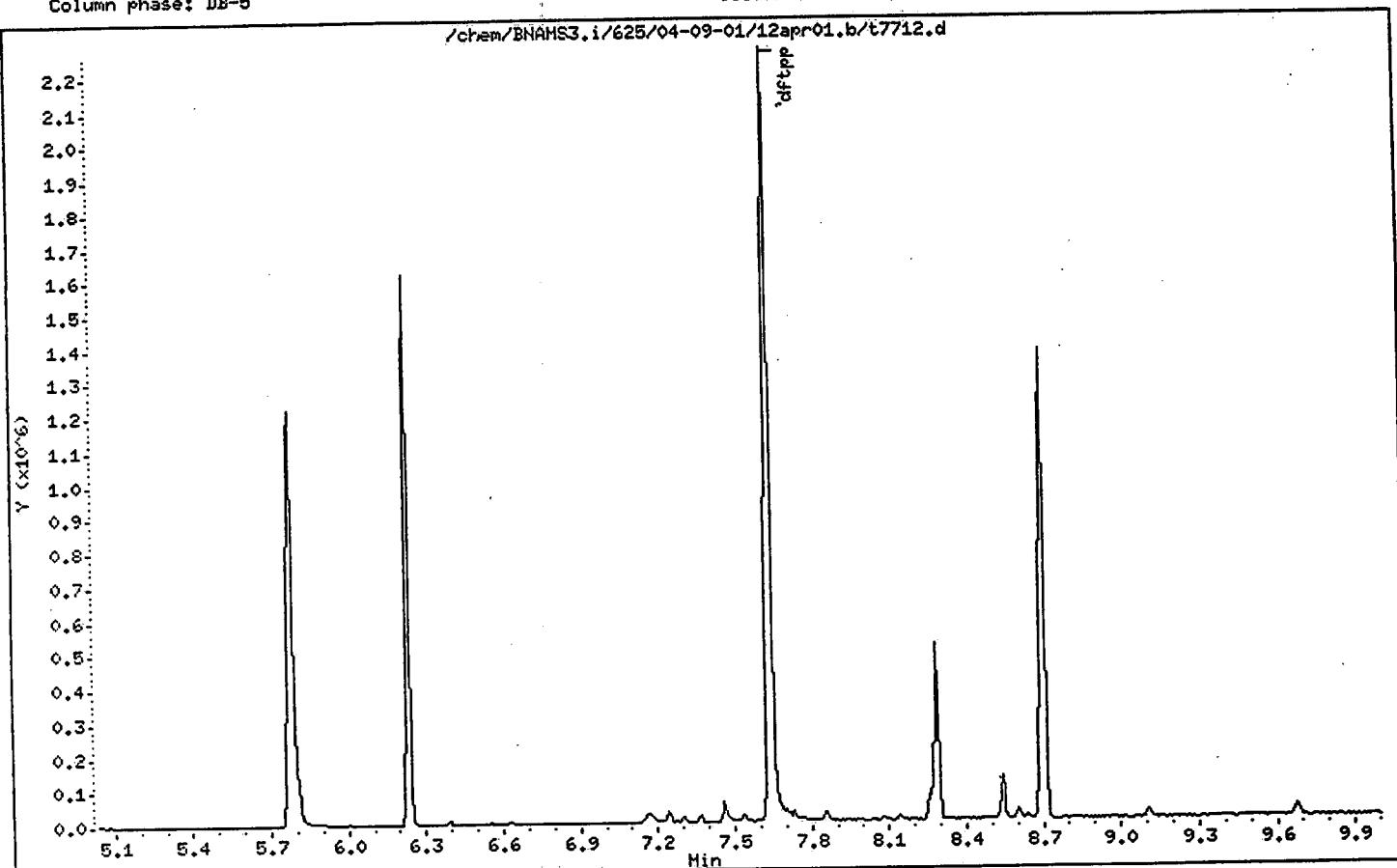
Instrument: BNAMS3.i

Sample Info: TDFT102

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: T7743

DFTPP Injection Date: 04/16/01

Instrument ID: BNAMS3

DFTPP Injection Time: 0846

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	72.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	52.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.6
275	10.0 - 30.0% of mass 198	14.9
365	Greater than 1.0% of mass 198	1.68
441	0.0 - 100.0% of mass 443	10.0 (74.5)2
442	40.0 - 110.0% of mass 198	67.1
443	17.0 - 23.0% of mass 442	13.4 (20.0)3

1-Value is % mass 69

2-Value is % mass 443

3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 TSTD106	TSTD106	T7744	04/16/01	0904
02 MW-4	266477	T7756	04/16/01	1858
03 MW-22	266479	T7757	04/16/01	1946
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				

Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7743.d

Date : 16-APR-2001 08:46

Client ID:

Instrument: BNAMS3.i

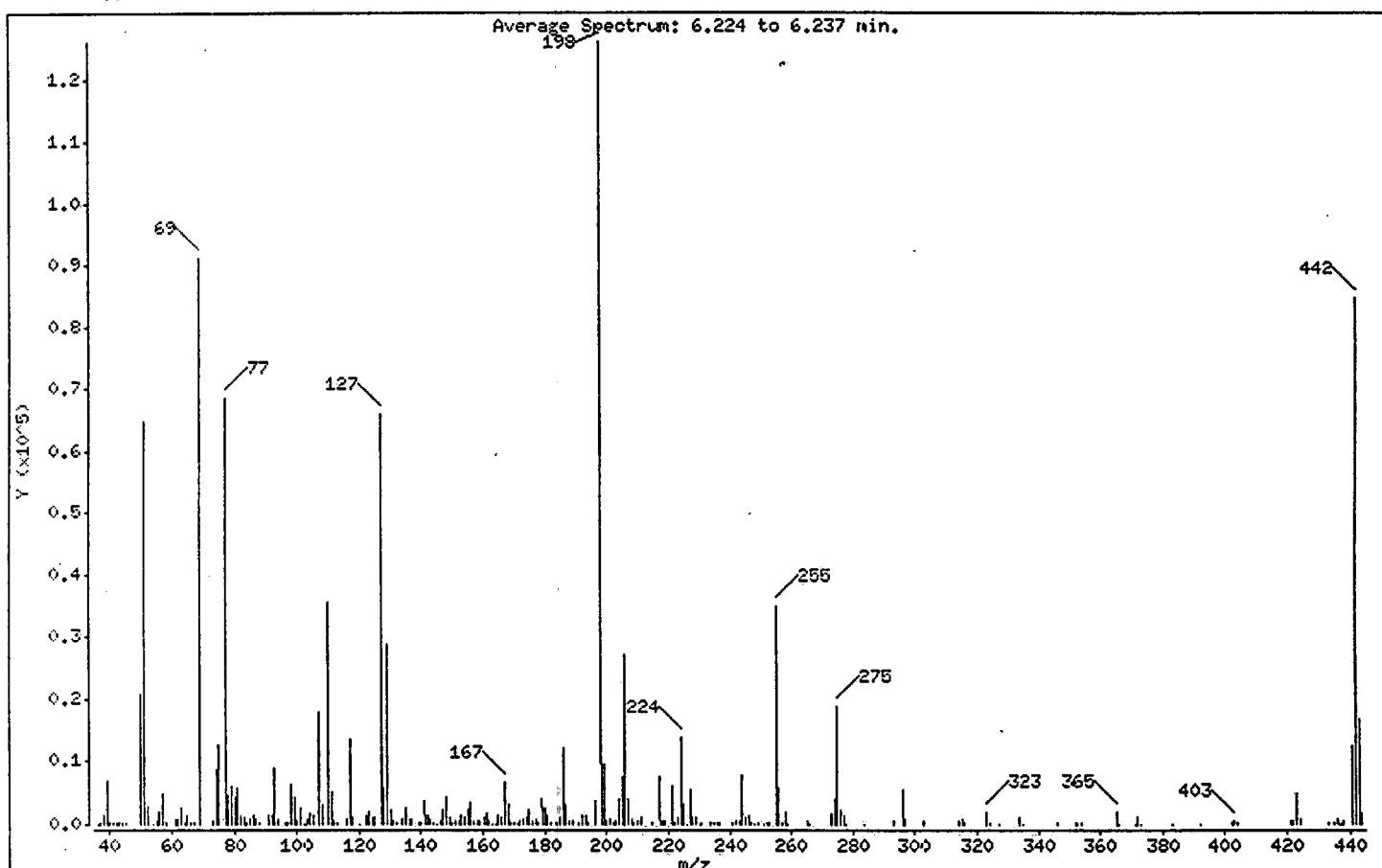
Sample Info: TDFT106

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	X RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.60
68	Less than 2.00% of mass 69	0.00 (< 0.00)
69	Mass 69 relative abundance	72.31
70	Less than 2.00% of mass 69	0.00 (< 0.00)
127	40.00 - 60.00% of mass 198	52.41
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.56
275	10.00 - 30.00% of mass 198	14.93
365	Greater than 1.00% of mass 198	1.68
441	0.01 - 100.00% of mass 443	9.99 (< 74.52)
442	40.00 - 110.00% of mass 198	67.08
443	17.00 - 23.00% of mass 442	13.40 (< 19.98)

Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7743.d

Date : 16-APR-2001 08:46

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT106

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: t7743.d

Spectrum: Average Spectrum: 6.224 to 6.237 min.

Location of Maximum: 198.00

Number of points: 232

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	104	112.00	617	178.00	406	252.00	263
37.00	347	113.00	232	179.00	3934	253.00	151
38.00	1375	116.00	763	180.00	2718	255.00	34928
39.00	6885	117.00	13536	181.00	1341	256.00	5797
40.00	334	118.00	1074	182.00	246	257.00	264
41.00	407	120.00	135	184.00	233	258.00	2031
42.00	148	122.00	1512	185.00	1081	259.00	114
43.00	392	123.00	2021	186.00	12068	265.00	685
44.00	279	124.00	1062	187.00	3229	266.00	144
45.00	152	125.00	1292	188.00	437	273.00	1700
50.00	20824	127.00	66024	189.00	670	274.00	3930
51.00	65008	128.00	5818	191.00	203	275.00	18808
52.00	3036	129.00	29088	192.00	1355	276.00	2427
54.00	120	130.00	2343	193.00	1338	277.00	1309
55.00	678	131.00	465	194.00	177	278.00	106
56.00	2163	132.00	303	196.00	3649	284.00	111
57.00	4945	134.00	895	198.00	125984	293.00	455
58.00	189	135.00	2503	199.00	9522	296.00	5563
61.00	801	136.00	921	200.00	672	297.00	884
62.00	963	137.00	829	201.00	789	303.00	460
63.00	2714	139.00	227	202.00	159	314.00	457
64.00	280	140.00	223	203.00	691	315.00	857
65.00	1497	141.00	3781	204.00	4131	316.00	431
66.00	258	142.00	1349	205.00	7521	323.00	1961
67.00	231	143.00	901	206.00	27128	324.00	172
69.00	91104	144.00	222	207.00	3939	327.00	110
73.00	633	145.00	143	208.00	867	334.00	1137
74.00	8619	146.00	620	209.00	196	335.00	140
75.00	12816	147.00	2175	210.00	695	346.00	289
77.00	68552	148.00	4336	211.00	1165	352.00	182
78.00	4685	149.00	1062	215.00	378	353.00	100
79.00	6025	150.00	298	217.00	7649	354.00	365
80.00	4306	151.00	494	218.00	677	365.00	2115
81.00	5899	152.00	522	219.00	483	366.00	129
82.00	1422	153.00	1427	221.00	6155	371.00	105

Data File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7743.d

Date : 16-APR-2001 08:46

Client ID:

Instrument: BNAMS3.i

Sample Info: TDFT106

Operator: BNAMS3.i

Column phase: DB-5

Column diameter: 0.25

Data File: t7743.d

Spectrum: Average Spectrum: 6.224 to 6.237 min.

Location of Maximum: 198.00

Number of points: 232

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1166	154.00	1020	222.00	343	372.00	1037
84.00	215	155.00	2324	223.00	1294	373.00	120
85.00	949	156.00	3588	224.00	14017	383.00	121
86.00	1542	157.00	715	225.00	3265	392.00	108
87.00	796	158.00	609	226.00	101	402.00	425
88.00	372	159.00	596	227.00	5581	403.00	551
91.00	1386	160.00	1230	228.00	1068	404.00	146
92.00	1514	161.00	1835	229.00	1141	421.00	648
93.00	9020	162.00	524	230.00	141	422.00	557
94.00	760	163.00	131	231.00	202	423.00	4819
96.00	330	164.00	116	234.00	242	424.00	939
97.00	257	165.00	1450	235.00	350	433.00	245
98.00	6254	166.00	1287	236.00	166	435.00	316
99.00	4369	167.00	6529	237.00	179	436.00	871
100.00	465	168.00	3172	241.00	348	437.00	143
101.00	2554	169.00	391	242.00	660	438.00	455
102.00	133	170.00	177	243.00	723	441.00	12583
103.00	785	171.00	144	244.00	7766	442.00	84512
104.00	1770	172.00	555	245.00	1092	443.00	16880
105.00	1388	173.00	746	246.00	1337	444.00	1651
107.00	17848	174.00	1096	247.00	274		
108.00	3170	175.00	2267	248.00	113		
110.00	35728	176.00	693	249.00	262		
111.00	5163	177.00	903	251.00	104		

Date File: /chem/BNAMS3.i/625/04-09-01/16apr01.b/t7743.d

Date : 16-APR-2001 08:46

Client ID:

Instrument: BNAMS3.i

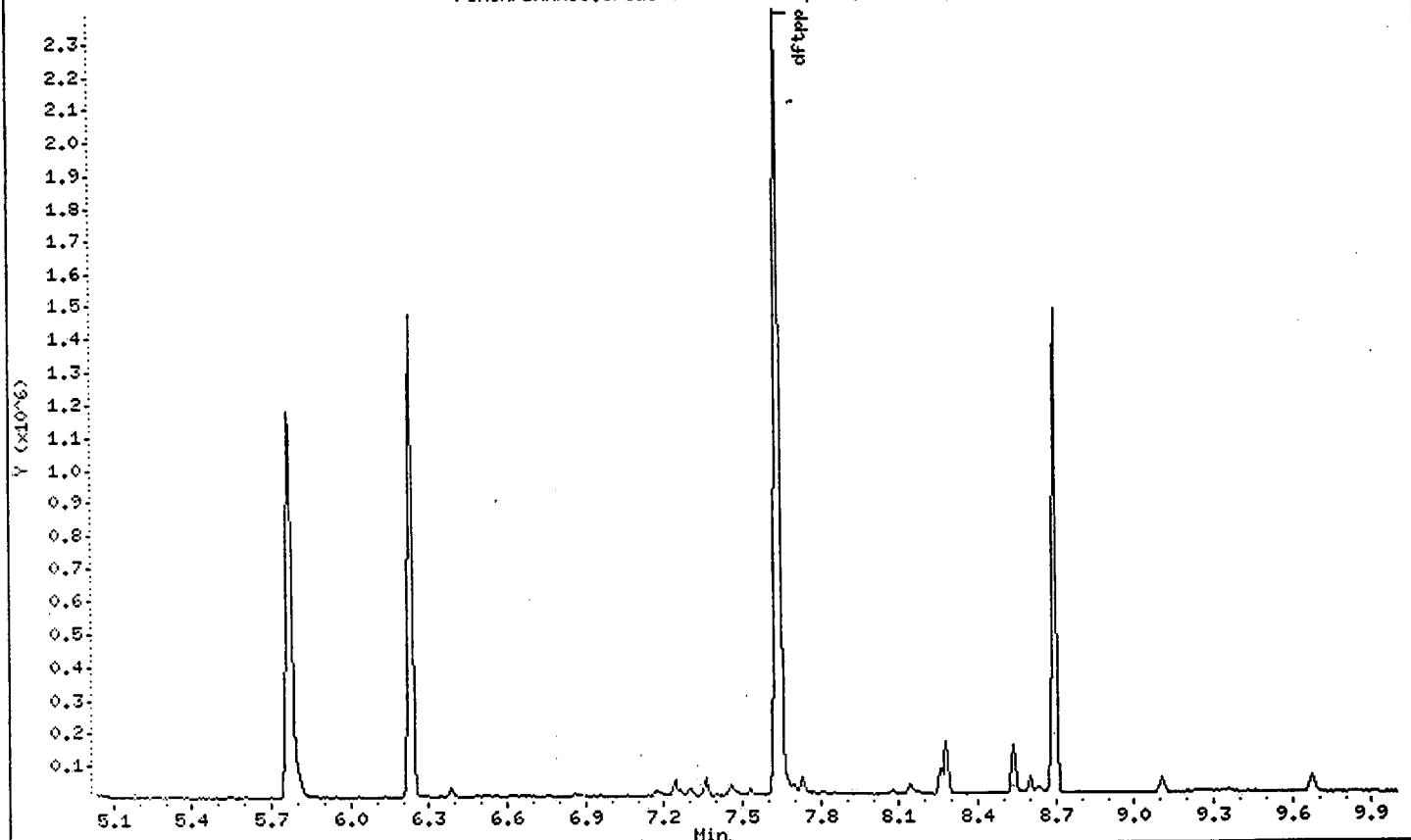
Sample Info: TDFT106

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

/chem/BNAMS3.i/625/04-09-01/16apr01.b/t7743.d



SEMIVOLATILE METHOD BLANK SUMMARY

WB096

Matrix: WATER

Date Analyzed: 04/09/01

Level: LOW

Time Analyzed: 1552

Instrument ID: BNAMS3

Lab File ID: T7628

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	DATE ANALYZED
01 MW-15I	266473	T7728	04/13/01
02 MW-15S	266474	T7729	04/13/01
03 MW-17S	266475	T7730	04/13/01
04 MW-11DR	266476	T7731	04/13/01
05 MW-14I	266478	T7733	04/13/01
06 MW-25	266480	T7735	04/13/01
07 MW-21	266481	T7736	04/13/01
08 FIELD_BLANK	266484	T7737	04/13/01
09 MW-4	266477	T7756	04/16/01
10 MW-22	266479	T7757	04/16/01
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

COMMENTS:

Client ID: WB096
Site:

Lab Sample No: WB096
Lab Job No: J519

Date Sampled: _____
Date Received: _____
Date Extracted: 04/06/01
Date Analyzed: 04/09/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7628.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Phenol	ND	0.3
2-Chlorophenol	ND	1.4
2-Methylphenol	ND	2.4
4-Methylphenol	ND	2.5
2-Nitrophenol	ND	1.2
2,4-Dimethylphenol	ND	1.5
2,4-Dichlorophenol	ND	2.1
4-Chloro-3-methylphenol	ND	2.0
2,4,6-Trichlorophenol	ND	1.6
2,4,5-Trichlorophenol	ND	4.9
2,4-Dinitrophenol	ND	0.4
4-Nitrophenol	ND	0.8
4,6-Dinitro-2-methylphenol	ND	1.3
Pentachlorophenol	ND	1.2
Benzoic Acid	ND	2.8
N-Nitrosodimethylamine	ND	0.6
bis(2-Chloroethyl)ether	ND	0.6
1,3-Dichlorobenzene	ND	0.8
1,4-Dichlorobenzene	ND	0.8
1,2-Dichlorobenzene	ND	0.8
bis(2-chloroisopropyl)ether	ND	0.5
N-Nitroso-di-n-propylamine	ND	1.2
Hexachloroethane	ND	0.9
Nitrobenzene	ND	0.8
Isophorone	ND	0.2
bis(2-Chloroethoxy)methane	ND	0.6
1,2,4-Trichlorobenzene	ND	0.8
Naphthalene	ND	0.6
4-Chloroaniline	ND	1.3
Hexachlorobutadiene	ND	1.1
2-Methylnaphthalene	ND	0.8
Hexachlorocyclopentadiene	ND	1.7
2-Chloronaphthalene	ND	0.8
2-Nitroaniline	ND	0.5

Client ID: WB096
Site:

Lab Sample No: WB096
Lab Job No: J519

Date Sampled: _____
Date Received: _____
Date Extracted: 04/06/01
Date Analyzed: 04/09/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7628.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
Dimethylphthalate	ND	0.5
Acenaphthylene	ND	0.6
2,6-Dinitrotoluene	ND	0.4
3-Nitroaniline	ND	0.3
Acenaphthene	ND	0.6
Dibenzofuran	ND	0.7
2,4-Dinitrotoluene	ND	0.2
Diethylphthalate	ND	0.4
4-Chlorophenyl-phenylether	ND	0.8
Fluorene	ND	0.6
4-Nitroaniline	ND	0.6
N-Nitrosodiphenylamine	ND	0.5
4-Bromophenyl-phenylether	ND	1.9
Hexachlorobenzene	ND	1.1
Phenanthrene	ND	0.5
Anthracene	ND	0.4
Carbazole	ND	1.1
Di-n-butylphthalate	ND	0.4
Fluoranthene	ND	0.4
Pyrene	ND	0.4
Benzidine	ND	25
Butylbenzylphthalate	ND	0.4
3,3'-Dichlorobenzidine	ND	1.3
Benzo(a)anthracene	ND	0.4
Chrysene	ND	0.5
bis(2-Ethylhexyl)phthalate	8.2	0.4
Di-n-octylphthalate	ND	0.1
Benzo(b)fluoranthene	ND	0.3
Benzo(k)fluoranthene	ND	0.8
Benzo(a)pyrene	ND	0.2
Indeno(1,2,3-cd)pyrene	ND	0.1
Dibenz(a,h)anthracene	ND	0.6
Benzo(g,h,i)perylene	ND	0.4
Pyridine	ND	0.6

Client ID: WB096
Site:

Lab Sample No: WB096
Lab Job No: J519

Date Sampled: _____
Date Received: _____
Date Extracted: 04/06/01
Date Analyzed: 04/09/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7628.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 625

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Aniline	ND	0.6
Benzyl Alcohol	ND	0.3
1,2-Diphenylhydrazine	ND	0.4
Diphenyl	ND	1.0
Diphenyl Ether	ND	10
Acetophenone	ND	0.8
N,N-Dimethylaniline	ND	0.8
1,4-Dioxane	ND	0.6
2,3,7,8-TCDD (screen)	ND	1.0
Benzaldehyde	ND	0.9
Caprolactum	ND	0.5
Atrazine	ND	0.7

Client ID: WB096
Site:

Lab Sample No: WB096
Lab Job No: J519

Date Sampled: _____
Date Received: _____
Date Extracted: 04/06/01
Date Analyzed: 04/09/01
GC Column: DB-5
Instrument ID: BNAMS3.i
Lab File ID: t7628.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 625

COMPOUND NAME	RT	EST. CONC. ug/l	Q
1. NO SEMI-VOLATILE ORGANIC COMPOUNDS FOUND	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
13.	_____	_____	_____
14.	_____	_____	_____
15.	_____	_____	_____
16.	_____	_____	_____
17.	_____	_____	_____
18.	_____	_____	_____
19.	_____	_____	_____
20.	_____	_____	_____
21.	_____	_____	_____
22.	_____	_____	_____
23.	_____	_____	_____
24.	_____	_____	_____
25.	_____	_____	_____
26.	_____	_____	_____
27.	_____	_____	_____
28.	_____	_____	_____
29.	_____	_____	_____
30.	_____	_____	_____
TOTAL ESTIMATED CONCENTRATION		0.0	

Data File: /chem/BNAMS3.i/625/04-09-01/09apr01.b/t7628.d
Report Date: 10-Apr-2001 10:34

STL Edison

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS3.i/625/04-09-01/09apr01.b/t7628.d
Lab Smp Id: WB096 Client Smp ID: BNA
Inj Date : 09-APR-2001 15:52
Operator : BNAMS 1 Inst ID: BNAMS3.i
Smp Info : WB096;1000;2;1;;
Misc Info : WB096;BNA;;
Comment :
Method : /chem/BNAMS3.i/625/04-09-01/09apr01.b/bna625b.m
Meth Date : 09-Apr-2001 15:54 eddie Quant Type: ISTD
Cal Date : 09-APR-2001 13:24 Cal File: t7625.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * 1000*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/ml)	FINAL (ug/L)
\$ 16 2-Fluorophenol (SUR)	112	10.673	10.676 (0.812)	242176	22.9194	46		
\$ 17 Phenol-d5 (SUR)	99	12.479	12.489 (0.950)	208880	14.9881	30		
* 79 1,4-Dichlorobenzene-d4	152	13.141	13.140 (1.000)	502502	40.0000			
\$ 76 Nitrobenzene-d5 (SUR)	82	14.101	14.097 (0.920)	646268	45.7643	92		
* 80 Naphthalene-d8	136	15.319	15.326 (1.000)	1590590	40.0000			
\$ 77 2-Fluorobiphenyl (SUR)	172	17.113	17.108 (0.937)	1230779	46.1790	92		
* 82 Acenaphthene-d10	164	18.259	18.259 (1.000)	1027500	40.0000			
\$ 18 2,4,6-Tribromophenol (SUR)	330	19.557	19.559 (1.071)	206755	50.7657	100		
* 83 Phenanthrene-d10	188	20.729	20.729 (1.000)	1285303	40.0000			
\$ 78 Terphenyl-d14 (SUR)	244	23.336	23.331 (0.928)	1076765	46.8078	94		
63 bis(2-Ethylhexyl)phthalate	149	25.057	25.062 (0.996)	209884	4.09948	8.2		
* 81 Chrysene-d12	240	25.157	25.171 (1.000)	1031259	40.0000			
* 84 Perylene-d12	264	28.800	28.808 (1.000)	906662	40.0000			

Data File: /chem/BNAHS3.i/625/04-09-01/09apr01.b/t7628.d
Date : 09-APR-2001 15:52
Client ID: BNA

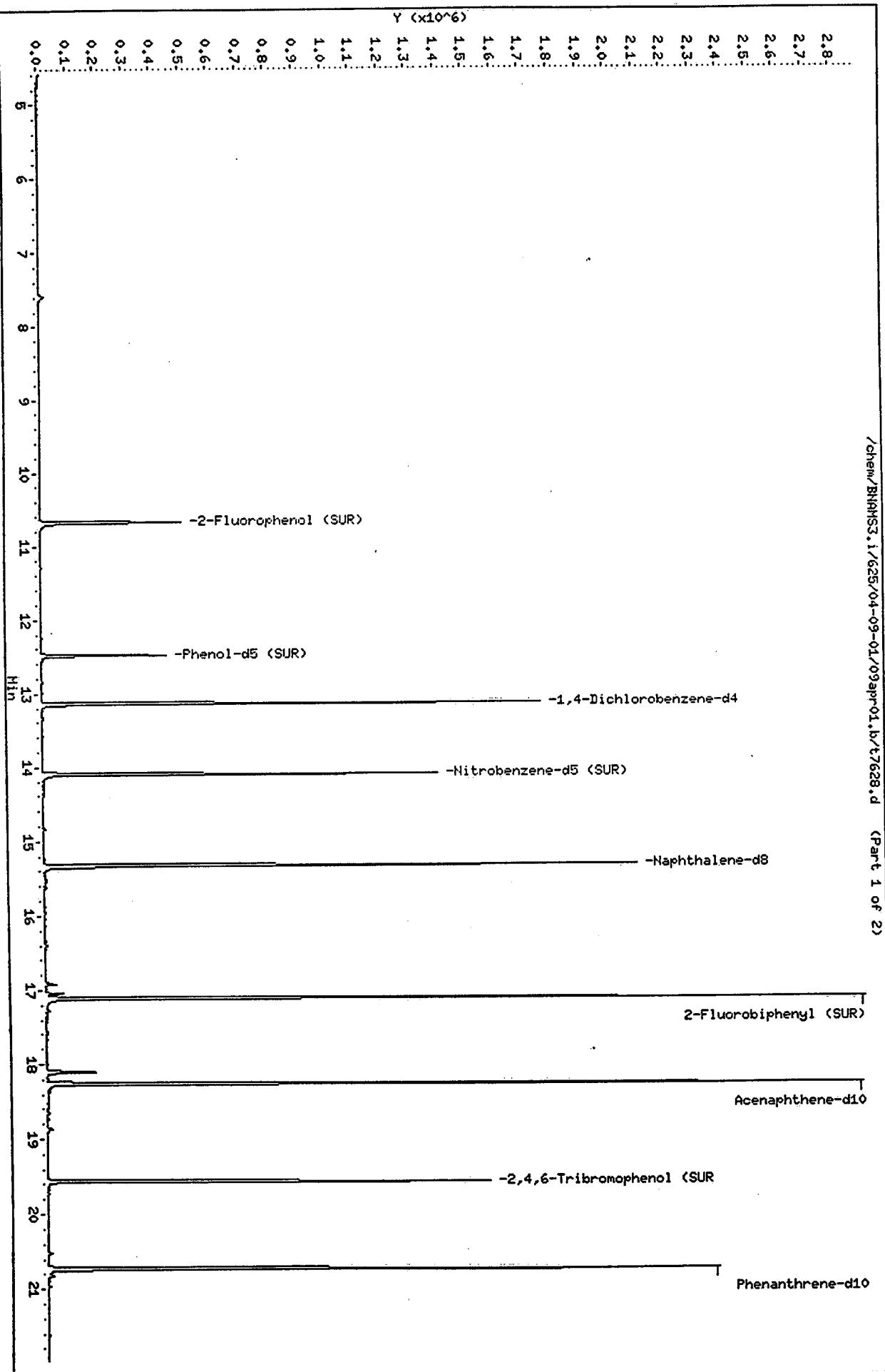
Sample Info: WD096;1,000;2;1;
Purge Volume: 1000.0

Column phase: DB-5

Instrument: BNAHS3.i

Operator: BNAHS 1
Column diameter: 0.53

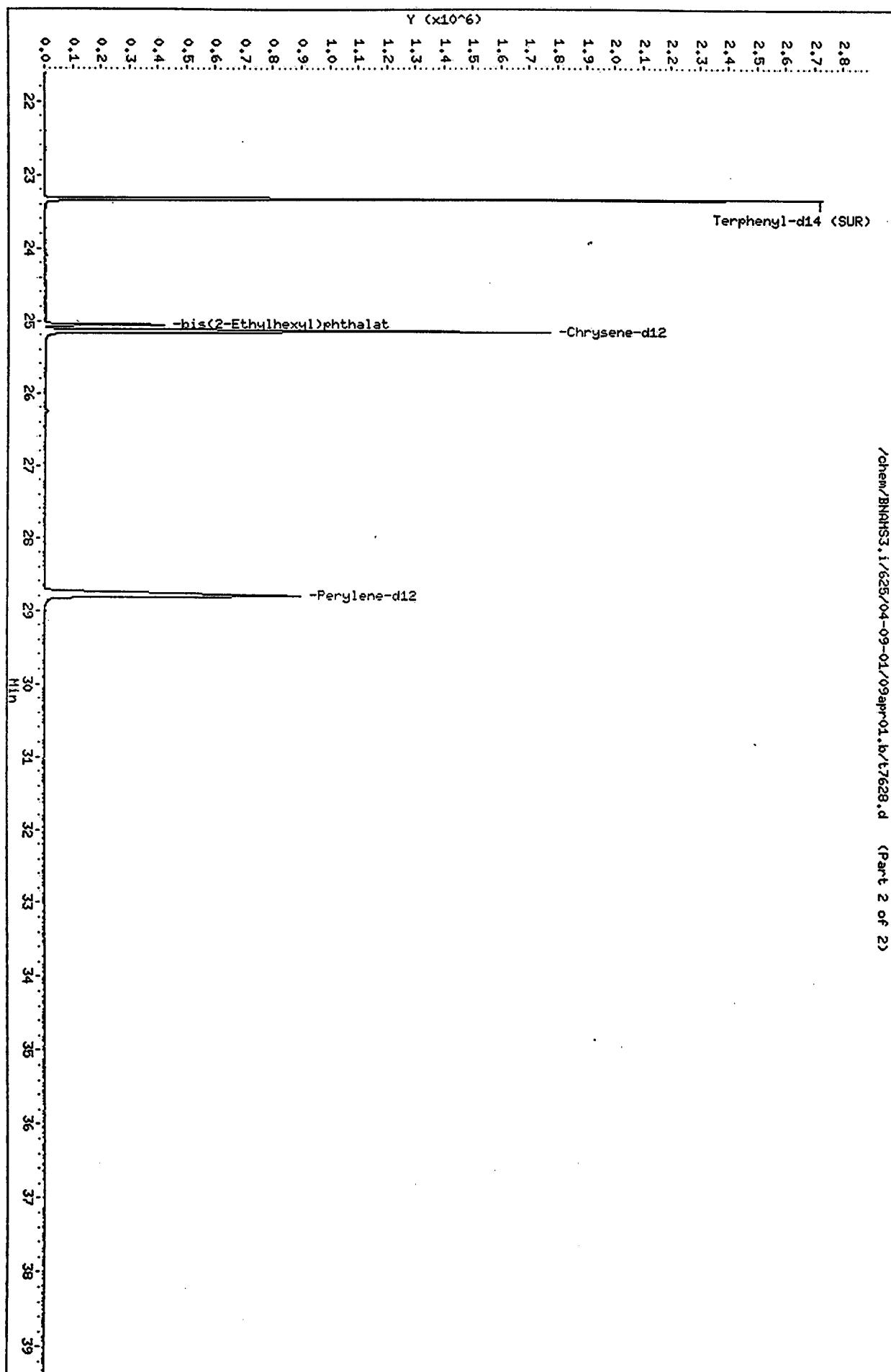
/chem/BNAHS3.i/625/04-09-01/09apr01.b/t7628.d (Part 1 of 2)



Data File: /chem/BNAHS3.i /625/04-09-01/09apr01.b/t7628.d
Date : 09-APR-2001 15:52
Client ID: BNA

Sample Info: WB096;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAHS3.i
Operator: BNAHS 1
Column diameter: 0.53
/chem/BNAHS3.i /625/04-09-01/09apr01.b/t7628.d (Part 2 of 2)



Data File: /chem/BNAHS3.i/625/04-09-01/09apr01.b/t7628.d

Date : 09-APR-2001 15:52

Client ID: BNA

Instrument: BNAHS3.i

Sample Info: WB096;1000;2;1;;

Purge Volume: 1000.0

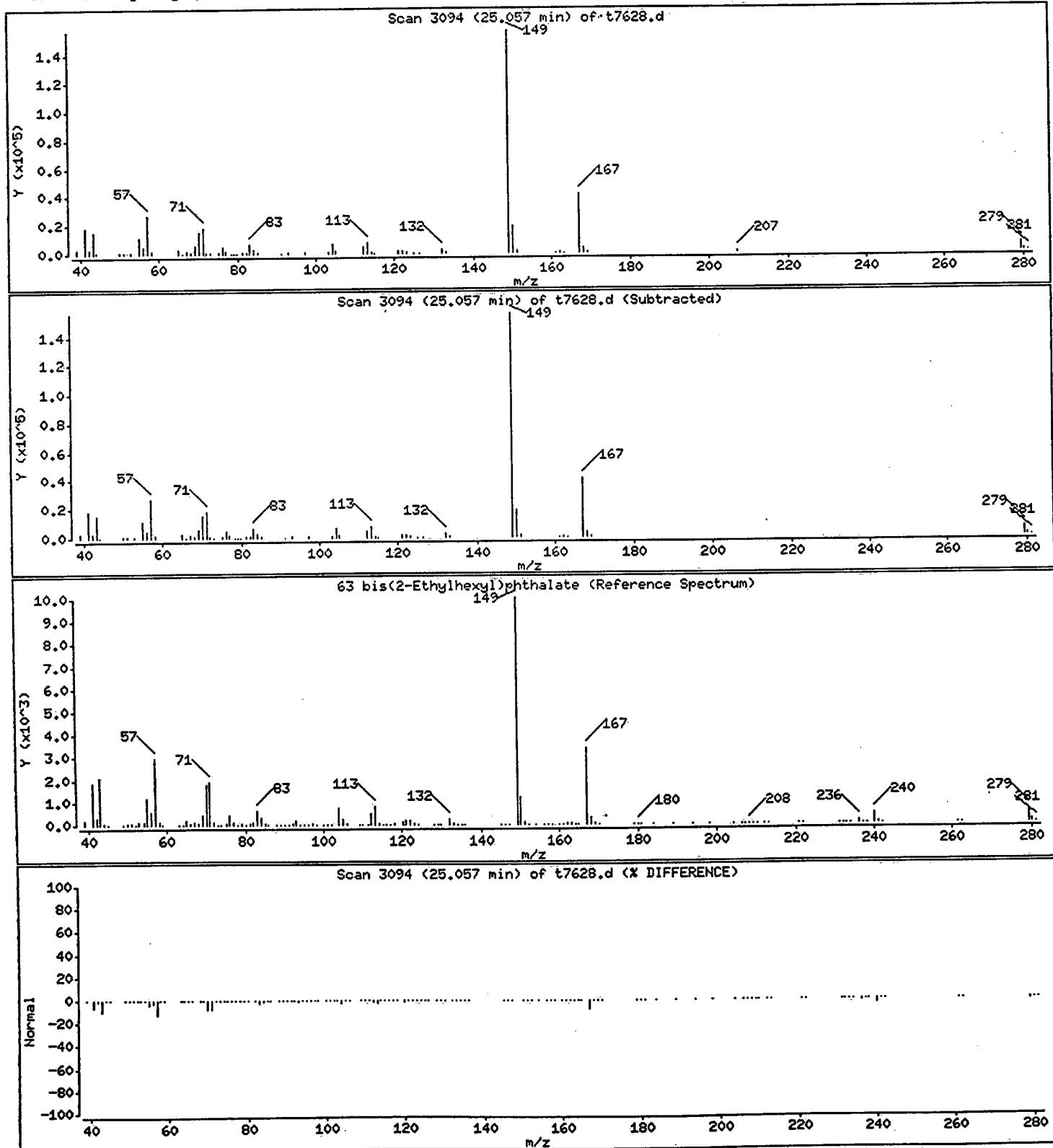
Operator: BNAHS 1

Column phase: DB-5

Column diameter: 0.53

63 bis(2-Ethylhexyl)phthalate

Concentration: 8.2 ug/L



SEMICVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 04/09/01 04/09/01

Calibration Time(s): 1008 1324

LAB FILE ID:	RRF10: T7622 RRF80: T7624	RRF20: T7625 RRF120: T7623	RRF50: T7621		
COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Phenol	1.138	1.162	1.149	1.084	0.998
2-Chlorophenol	1.116	1.214	1.110	1.071	1.088
2-Methylphenol	0.844	0.938	0.868	0.839	0.806
4-Methylphenol	0.910	0.950	0.827	0.753	0.744
2-Nitrophenol	0.254	0.270	0.261	0.249	0.243
2,4-Dimethylphenol	0.301	0.321	0.286	0.278	0.271
2,4-Dichlorophenol	0.315	0.378	0.321	0.359	0.343
4-Chloro-3-methylphenol	0.265	0.288	0.272	0.251	0.241
2,4,6-Trichlorophenol	0.324	0.322	0.326	0.297	0.300
2,4,5-Trichlorophenol	0.350	0.338	0.353	0.320	0.327
2,4-Dinitrophenol	0.155	0.163	0.190	0.176	0.186
4-Nitrophenol	0.293	0.255	0.297	0.255	0.275
4,6-Dinitro-2-methylphenol	0.190	0.198	0.196	0.195	0.197
Pentachlorophenol	0.117	0.123	0.114	0.116	0.122
Benzoic Acid	0.169	0.183	0.167	0.168	0.171
N-Nitrosodimethylamine	0.502	0.503	0.640	0.554	0.592
bis(2-Chloroethyl)ether	0.913	0.972	0.883	0.852	0.838
1,3-Dichlorobenzene	1.436	1.481	1.414	1.328	1.355
1,4-Dichlorobenzene	1.403	1.476	1.419	1.344	1.362
1,2-Dichlorobenzene	1.444	1.442	1.366	1.288	1.279
bis(2-chloroisopropyl)ether	1.032	1.030	0.980	0.827	0.764
N-Nitroso-di-n-propylamine	0.728	0.741	0.660	0.616	0.641
Hexachloroethane	0.403	0.406	0.401	0.376	0.370
Nitrobenzene	0.484	0.498	0.447	0.445	0.445
Isophorone	0.656	0.686	0.655	0.649	0.653
bis(2-Chloroethoxy)methane	0.349	0.371	0.323	0.313	0.304
1,2,4-Trichlorobenzene	0.242	0.268	0.233	0.239	0.235
Naphthalene	1.003	1.026	0.954	0.858	0.850
4-Chloroaniline	0.379	0.415	0.397	0.386	0.381
Hexachlorobutadiene	0.115	0.136	0.117	0.130	0.132
2-Methylnaphthalene	0.780	0.818	0.760	0.714	0.701
Hexachlorocyclopentadiene	0.094	0.089	0.124	0.119	0.129
2-Chloronaphthalene	1.200	1.244	1.211	1.148	1.188
2-Nitroaniline	0.358	0.336	0.368	0.302	0.310
Dimethylphthalate	1.450	1.487	1.426	1.384	1.432
Acenaphthylene	2.335	2.356	2.302	2.098	2.182
2,6-Dinitrotoluene	0.355	0.381	0.374	0.357	0.364
3-Nitroaniline	0.420	0.425	0.476	0.400	0.423
Acenaphthene	1.483	1.451	1.488	1.329	1.395

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 04/09/01 04/09/01

Calibration Time(s): 1008 1324

LAB FILE ID:	RRF10: T7622 RRF80: T7624	RRF20: T7625 RRF120: T7623	RRF50: T7621		
COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.479	1.510	1.484	1.374	1.406
2,4-Dinitrotoluene	0.462	0.491	0.482	0.455	0.472
Diethylphthalate	1.871	1.746	1.877	1.576	1.670
4-Chlorophenyl-phenylether	0.556	0.542	0.542	0.471	0.492
Fluorene	1.269	1.279	1.268	1.194	1.277
4-Nitroaniline	0.450	0.428	0.482	0.400	0.406
N-Nitrosodiphenylamine	0.638	0.708	0.619	0.655	0.632
4-Bromophenyl-phenylether	0.142	0.165	0.137	0.144	0.141
Hexachlorobenzene	0.217	0.227	0.201	0.204	0.204
Phanthrene	1.089	1.208	1.032	1.062	1.052
Anthracene	1.122	1.219	1.038	1.066	1.067
Carbazole	1.230	1.378	1.177	1.168	1.177
Di-n-butylphthalate	2.535	2.570	2.457	2.271	2.268
Fluoranthene	1.363	1.424	1.336	1.262	1.294
Pyrene	1.887	1.828	1.873	1.750	1.782
Benzidine	0.233	0.351	0.254	0.195	0.112
Butylbenzylphthalate	1.591	1.513	1.591	1.442	1.476
3,3'-Dichlorobenzidine	0.385	0.384	0.390	0.362	0.327
Benzo(a)anthracene	1.451	1.518	1.491	1.504	1.560
Chrysene	1.372	1.370	1.402	1.437	1.461
bis(2-Ethylhexyl)phthalate	2.149	1.936	2.098	1.862	1.884
Di-n-octylphthalate	4.128	4.318	4.418	4.113	4.272
Benzo(b)fluoranthene	1.080	1.216	1.138	1.215	1.399
Benzo(k)fluoranthene	1.122	1.242	1.146	1.124	1.066
Benzo(a)pyrene	1.042	1.157	1.082	1.106	1.117
Indeno(1,2,3-cd)pyrene	1.066	1.161	1.305	1.297	1.375
Dibenz(a,h)anthracene	1.044	1.152	1.202	1.206	1.278
Benzo(g,h,i)perylene	1.144	1.150	1.278	1.173	1.270
Pyridine	0.854	0.808	0.985	0.827	0.900
Aniline	1.138	1.248	1.135	1.125	1.086
Benzyl Alcohol	0.619	0.677	0.620	0.619	0.615
1,2-Diphenylhydrazine	1.032	1.087	0.960	0.905	0.878
Diphenyl	1.837	1.736	1.822	1.655	1.714
Diphenyl Ether	0.671	0.725	0.656	0.631	0.639
Acetophenone	1.260	1.242	1.081	1.052	1.066
N,N-Dimethylaniline	1.499	1.470	1.305	1.220	1.213
1,4-Dioxane	0.346	0.330	0.365	0.316	0.327
2,3,7,8-TCDD (screen)			0.163		
Benzaldehyde	0.807	0.715	0.500	0.385	0.281

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 04/09/01 04/09/01

Calibration Time(s): 1008 1324

LAB FILE ID:	RRF10: T7622 RRF80: T7624	RRF20: T7625 RRF120: T7623	RRF50: T7621		
COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF120
Caprolactum	0.130	0.141	0.136	0.125	0.138
Atrazine	0.229	0.228	0.216	0.192	0.196
2-Fluorophenol (SUR)	0.840	0.804	0.881	0.823	0.857
Phenol-d5 (SUR)	1.128	1.109	1.138	1.090	1.081
2,4,6-Tribromophenol (SUR)	0.158	0.157	0.166	0.152	0.160
Nitrobenzene-d5 (SUR)	0.374	0.369	0.354	0.343	0.336
2-Fluorobiphenyl (SUR)	1.090	1.089	1.022	0.983	1.004
Terphenyl-d14 (SUR)	0.891	0.906	0.829	0.877	0.958

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s) : 04/09/01 04/09/01

Calibration Time(s) : 1008 1324

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
Phenol	AVRG	1.10608257	6.1*
2-Chlorophenol	AVRG	1.11964562	5.0*
2-Methylphenol	AVRG	0.85891848	5.7*
4-Methylphenol	AVRG	0.83682580	11.0*
2-Nitrophenol	AVRG	0.25545546	4.2*
2,4-Dimethylphenol	AVRG	0.29146460	6.9*
2,4-Dichlorophenol	AVRG	0.34318976	7.6*
4-Chloro-3-methylphenol	AVRG	0.26363976	6.9*
2,4,6-Trichlorophenol	AVRG	0.31408656	4.4*
2,4,5-Trichlorophenol	AVRG	0.33738636	4.2*
2,4-Dinitrophenol	AVRG	0.17397507	8.5**
4-Nitrophenol	AVRG	0.27521779	7.3**
4,6-Dinitro-2-methylphenol	AVRG	0.19524005	1.7*
Pentachlorophenol	AVRG	0.11845218	3.4*
Benzoic Acid	AVRG	0.17169936	3.8*
N-Nitrosodimethylamine	AVRG	0.55823088	10.6**
bis(2-Chloroethyl)ether	AVRG	0.89149775	6.0*
1,3-Dichlorobenzene	AVRG	1.40297124	4.4*
1,4-Dichlorobenzene	AVRG	1.40097139	3.7*
1,2-Dichlorobenzene	AVRG	1.36393722	5.8*
bis(2-chloroisopropyl)ether	AVRG	0.92671129	13.4*
N-Nitroso-di-n-propylamine	AVRG	0.67735742	8.1**
Hexachloroethane	AVRG	0.39150287	4.3*
Nitrobenzene	AVRG	0.46391653	5.4*
Isophorone	AVRG	0.65984767	2.3*
bis(2-Chloroethoxy)methane	AVRG	0.33216553	8.3*
1,2,4-Trichlorobenzene	AVRG	0.24344132	5.9*
Naphthalene	AVRG	0.93823323	8.6*
4-Chloroaniline	AVRG	0.39174594	3.8*
Hexachlorobutadiene	AVRG	0.12599293	7.2*
2-Methylnaphthalene	AVRG	0.75470438	6.3*
Hexachlorocyclopentadiene	AVRG	0.11118379	16.4**
2-Chloronaphthalene	AVRG	1.19836207	2.9*
2-Nitroaniline	AVRG	0.33482844	8.6*
Dimethylphthalate	AVRG	1.43561265	2.6*
Acenaphthylene	AVRG	2.25456474	4.9*
2,6-Dinitrotoluene	AVRG	0.36629853	3.1*
3-Nitroaniline	AVRG	0.42895787	6.6*
Acenaphthene	AVRG	1.42929877	4.7*

* Compound with required maximum % RSD value.

** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s): 04/09/01 04/09/01

Calibration Time(s): 1008

1324

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.45052423	4.0*
2,4-Dinitrotoluene	AVRG	0.47229276	3.1*
Diethylphthalate	AVRG	1.74801595	7.4*
4-Chlorophenyl-phenylether	AVRG	0.52038311	7.1*
Fluorene	AVRG	1.25735367	2.8*
4-Nitroaniline	AVRG	0.43304994	7.8*
N-Nitrosodiphenylamine	AVRG	0.65042653	5.3*
4-Bromophenyl-phenylether	AVRG	0.14569628	7.6*
Hexachlorobenzene	AVRG	0.21067874	5.2*
Phenanthrene	AVRG	1.08856548	6.4*
Anthracene	AVRG	1.10249872	6.5*
Carbazole	AVRG	1.22573294	7.2*
Di-n-butylphthalate	AVRG	2.42005659	5.9*
Fluoranthene	AVRG	1.33594797	4.7*
Pyrene	AVRG	1.82401449	3.2*
Benzidine	AVRG	0.22907728	38.1*
Butylbenzylphthalate	AVRG	1.52255096	4.4*
3,3'-Dichlorobenzidine	AVRG	0.36974735	7.0*
Benzo(a)anthracene	AVRG	1.50482437	2.6*
Chrysene	AVRG	1.40868715	2.8*
bis(2-Ethylhexyl)phthalate	AVRG	1.98583250	6.5*
Di-n-octylphthalate	AVRG	4.24977975	3.0*
Benzo(b)fluoranthene	AVRG	1.20947103	10.0*
Benzo(k)fluoranthene	AVRG	1.14017030	5.6*
Benzo(a)pyrene	AVRG	1.10078964	3.9*
Indeno(1,2,3-cd)pyrene	AVRG	1.24086144	10.0*
Dibenz(a,h)anthracene	AVRG	1.17659460	7.3*
Benzo(g,h,i)perylene	AVRG	1.20291547	5.5*
Pyridine	AVRG	0.87468317	8.1*
Aniline	AVRG	1.14656004	5.3*
Benzyl Alcohol	AVRG	0.62998452	4.2*
1,2-Diphenylhydrazine	AVRG	0.97243265	9.0*
Diphenyl	AVRG	1.75291234	4.4**
Diphenyl Ether	AVRG	0.66456530	5.6**
Acetophenone	AVRG	1.14013175	8.9**
N,N-Dimethylaniline	AVRG	1.34146058	10.1**
1,4-Dioxane	AVRG	0.33672175	5.6**
2,3,7,8-TCDD (screen)	AVRG	0.16267864	0.0*
Benzaldehyde	AVRG	0.53758063	41.1*

* Compound with required maximum % RSD value.

** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date(s) : 04/09/01 04/09/01

Calibration Time(s) : 1008 1324

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
Caprolactum _____	AVRG	0.13428331	5.0*
Atrazine _____	AVRG	0.21251286	8.3*
2-Fluorophenol (SUR) _____	AVRG	0.84110556	3.5*
Phenol-d5 (SUR) _____	AVRG	1.10936057	2.2*
2,4,6-Tribromophenol (SUR) _____	AVRG	0.15854923	3.4*
Nitrobenzene-d5 (SUR) _____	AVRG	0.35512980	4.6*
2-Fluorobiphenyl (SUR) _____	AVRG	1.03756104	4.8*
Terphenyl-d14 (SUR) _____	AVRG	0.89226646	5.2*

* Compound with required maximum % RSD value.

** Compound with required minimum RRF value.

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS3

Calibration Date: 04/12/01 Time: 1123

Lab File ID: T7713

Init. Calib. Date(s): 04/09/01 04/09/01

Init. Calib. Times: 1008 1324

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.106	1.143		-3.3	20.0
2-Chlorophenol	1.120	1.089		2.8	20.0
2-Methylphenol	0.859	0.841		2.1	
4-Methylphenol	0.837	0.750		10.4	
2-Nitrophenol	0.255	0.259		-1.6	20.0
2,4-Dimethylphenol	0.291	0.285		2.1	20.0
2,4-Dichlorophenol	0.343	0.367		-7.0	20.0
4-Chloro-3-methylphenol	0.263	0.274		-4.2	20.0
2,4,6-Trichlorophenol	0.314	0.299		4.8	20.0
2,4,5-Trichlorophenol	0.338	0.325		3.8	
2,4-Dinitrophenol	0.174	0.163	0.05	6.3	20.0
4-Nitrophenol	0.275	0.248	0.05	9.8	20.0
4,6-Dinitro-2-methylphenol	0.195	0.199		-2.0	20.0
Pentachlorophenol	0.118	0.116		1.7	20.0
Benzoic Acid	0.172	0.150		12.8	
N-Nitrosodimethylamine	0.558	0.550	0.01	1.4	20.0
bis(2-Chloroethyl)ether	0.892	0.859		3.7	20.0
1,3-Dichlorobenzene	1.403	1.361		3.0	20.0
1,4-Dichlorobenzene	1.401	1.377		1.7	20.0
1,2-Dichlorobenzene	1.364	1.329		2.6	20.0
bis(2-chloroisopropyl)ether	0.927	0.912		1.6	20.0
N-Nitroso-di-n-propylamine	0.677	0.617	0.05	8.9	20.0
Hexachloroethane	0.391	0.381		2.6	20.0
Nitrobenzene	0.464	0.466		-0.4	20.0
Isophorone	0.660	0.681		-3.2	20.0
bis(2-Chloroethoxy)methane	0.332	0.332		0.0	20.0
1,2,4-Trichlorobenzene	0.243	0.254		-4.5	20.0
Naphthalene	0.938	0.940		-0.2	20.0
4-Chloroaniline	0.392	0.409		-4.3	
Hexachlorobutadiene	0.126	0.140		-11.1	20.0
2-Methylnaphthalene	0.755	0.724		4.1	
Hexachlorocyclopentadiene	0.111	0.106	0.05	4.5	20.0
2-Chloronaphthalene	1.198	1.180		1.5	20.0
2-Nitroaniline	0.335	0.323		3.6	
Dimethylphthalate	1.436	1.427		0.6	20.0
Acenaphthylene	2.255	2.134		5.4	20.0
2,6-Dinitrotoluene	0.366	0.374		-2.2	20.0

SEMOVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3

Calibration Date: 04/12/01 Time: 1123

Lab File ID: T7713

Init. Calib. Date(s): 04/09/01 04/09/01

Init. Calib. Times: 1008 1324

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.429	0.421		1.9	
Acenaphthene	1.429	1.348		5.7	20.0
Dibenzofuran	1.451	1.451		0.0	
2,4-Dinitrotoluene	0.472	0.471		0.2	20.0
Diethylphthalate	1.748	1.659		5.1	20.0
4-Chlorophenyl-phenylether	0.521	0.484		7.1	20.0
Fluorene	1.257	1.219		3.0	20.0
4-Nitroaniline	0.433	0.408		5.8	
N-Nitrosodiphenylamine	0.650	0.677		-4.2	20.0
4-Bromophenyl-phenylether	0.146	0.146		0.0	20.0
Hexachlorobenzene	0.211	0.202		4.3	20.0
Phenanthrene	1.089	1.057		2.9	20.0
Anthracene	1.102	1.078		2.2	20.0
Carbazole	1.226	1.201		2.0	
Di-n-butylphthalate	2.420	2.390		1.2	20.0
Fluoranthene	1.336	1.334		0.1	20.0
Pyrene	1.824	1.791		1.8	20.0
Benzidine	0.229	0.270		-17.9	
Butylbenzylphthalate	1.523	1.512		0.7	20.0
3,3'-Dichlorobenzidine	0.370	0.349		5.7	20.0
Benzo(a)anthracene	1.505	1.522		-1.1	20.0
Chrysene	1.408	1.420		-0.8	20.0
bis(2-Ethylhexyl)phthalate	1.986	1.904		4.1	20.0
Di-n-octylphthalate	4.250	4.367		-2.8	20.0
Benzo(b)fluoranthene	1.210	1.228		-1.5	20.0
Benzo(k)fluoranthene	1.140	1.116		2.1	20.0
Benzo(a)pyrene	1.101	1.119		-1.6	20.0
Indeno(1,2,3-cd)pyrene	1.241	1.147		7.6	20.0
Dibenz(a,h)anthracene	1.176	1.049		10.8	20.0
Benzo(g,h,i)perylene	1.203	1.057		12.1	20.0
Pyridine	0.875	0.842		3.8	
Aniline	1.146	1.142		0.3	
Benzyl Alcohol	0.630	0.613		2.7	
1,2-Diphenylhydrazine	0.972	0.939		3.4	
Diphenyl	1.753	1.681	0.001	4.1	20.0
Diphenyl Ether	0.664	0.646	0.001	2.7	20.0
Acetophenone	1.140	1.056	0.001	7.4	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 04/12/01 Time: 1123
 Lab File ID: T7713 Init. Calib. Date(s): 04/09/01 04/09/01
 Init. Calib. Times: 1008 1324

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N,N-Dimethylaniline	1.341	1.238	0.001	7.7	20.0
1,4-Dioxane	0.337	0.323	0.01	4.2	20.0
2,3,7,8-TCDD (screen)	0.163	0.187		-14.7	20.0
Benzaldehyde	0.538	0.527		2.0	20.0
Caprolactum	0.134	0.139		-3.7	20.0
Atrazine	0.212	0.206		2.8	20.0
2-Fluorophenol (SUR)	0.841	0.829		1.4	
Phenol-d5 (SUR)	1.109	1.088		1.9	
2,4,6-Tribromophenol (SUR)	0.159	0.155		2.5	20.0
Nitrobenzene-d5 (SUR)	0.355	0.362		-2.0	
2-Fluorobiphenyl (SUR)	1.038	1.005		3.2	
Terphenyl-d14 (SUR)	0.892	0.834		6.5	

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 625

Instrument ID: BNAMS3

Calibration Date: 04/16/01 Time: 0904

Lab File ID: T7744

Init. Calib. Date(s): 04/09/01 04/09/01

Init. Calib. Times: 1008 1324

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.106	1.156		-4.5	20.0
2-Chlorophenol	1.120	1.071		4.4	20.0
2-Methylphenol	0.859	0.868		-1.0	
4-Methylphenol	0.837	0.797		4.8	
2-Nitrophenol	0.255	0.272		-6.7	20.0
2,4-Dimethylphenol	0.291	0.299		-2.7	20.0
2,4-Dichlorophenol	0.343	0.377		-9.9	20.0
4-Chloro-3-methylphenol	0.263	0.291		-10.6	20.0
2,4,6-Trichlorophenol	0.314	0.304		3.2	20.0
2,4,5-Trichlorophenol	0.338	0.335		0.9	
2,4-Dinitrophenol	0.174	0.167	0.05	4.0	20.0
4-Nitrophenol	0.275	0.272	0.05	1.1	20.0
4,6-Dinitro-2-methylphenol	0.195	0.194		0.5	20.0
Pentachlorophenol	0.118	0.109		7.6	20.0
Benzoic Acid	0.172	0.141		18.0	
N-Nitrosodimethylamine	0.558	0.599	0.01	-7.3	20.0
bis(2-Chloroethyl)ether	0.892	0.892		0.0	20.0
1,3-Dichlorobenzene	1.403	1.380		1.6	20.0
1,4-Dichlorobenzene	1.401	1.382		1.4	20.0
1,2-Dichlorobenzene	1.364	1.334		2.2	20.0
bis(2-chloroisopropyl)ether	0.927	0.984		-6.1	20.0
N-Nitroso-di-n-propylamine	0.677	0.634	0.05	6.4	20.0
Hexachloroethane	0.391	0.392		-0.2	20.0
Nitrobenzene	0.464	0.476		-2.6	20.0
Isophorone	0.660	0.727		-10.2	20.0
bis(2-Chloroethoxy)methane	0.332	0.347		-4.5	20.0
1,2,4-Trichlorobenzene	0.243	0.264		-8.6	20.0
Naphthalene	0.938	0.976		-4.0	20.0
4-Chloroaniline	0.392	0.425		-8.4	
Hexachlorobutadiene	0.126	0.136		-7.9	20.0
2-Methylnaphthalene	0.755	0.769		-1.8	
Hexachlorocyclopentadiene	0.111	0.124	0.05	-11.7	20.0
2-Chloronaphthalene	1.198	1.205		-0.6	20.0
2-Nitroaniline	0.335	0.343		-2.4	
Dimethylphthalate	1.436	1.442		-0.4	20.0
Acenaphthylene	2.255	2.153		4.5	20.0
2,6-Dinitrotoluene	0.366	0.382		-4.4	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK (cont'd)
METHOD 625

Instrument ID: BNAMS3	Calibration Date: 04/16/01	Time: 0904
Lab File ID: T7744	Init. Calib. Date(s): 04/09/01	04/09/01
	Init. Calib. Times:	1008 1324

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.429	0.432		-0.7	
Acenaphthene	1.429	1.373		3.9	20.0
Dibenzofuran	1.451	1.485		-2.3	
2,4-Dinitrotoluene	0.472	0.493		-4.4	20.0
Diethylphthalate	1.748	1.744		0.2	20.0
4-Chlorophenyl-phenylether	0.521	0.517		0.8	20.0
Fluorene	1.257	1.250		0.6	20.0
4-Nitroaniline	0.433	0.429		0.9	
N-Nitrosodiphenylamine	0.650	0.657		-1.1	20.0
4-Bromophenyl-phenylether	0.146	0.141		3.4	20.0
Hexachlorobenzene	0.211	0.197		6.6	20.0
Phenanthrene	1.089	1.034		5.0	20.0
Anthracene	1.102	1.035		6.1	20.0
Carbazole	1.226	1.218		0.6	
Di-n-butylphthalate	2.420	2.359		2.5	20.0
Fluoranthene	1.336	1.295		3.1	20.0
Pyrene	1.824	1.819		0.3	20.0
Benzidine	0.229	0.263		-14.8	
Butylbenzylphthalate	1.523	1.544		-1.4	20.0
3,3'-Dichlorobenzidine	0.370	0.365		1.4	20.0
Benzo(a)anthracene	1.505	1.513		-0.5	20.0
Chrysene	1.408	1.428		-1.4	20.0
bis(2-Ethylhexyl)phthalate	1.986	1.944		2.1	20.0
Di-n-octylphthalate	4.250	4.404		-3.6	20.0
Benzo(b)fluoranthene	1.210	1.154		4.6	20.0
Benzo(k)fluoranthene	1.140	1.175		-3.1	20.0
Benzo(a)pyrene	1.101	1.123		-2.0	20.0
Indeno(1,2,3-cd)pyrene	1.241	1.295		-4.4	20.0
Dibenz(a,h)anthracene	1.176	1.224		-4.1	20.0
Benzo(g,h,i)perylene	1.203	1.312		-9.1	20.0
Pyridine	0.875	0.884		-1.0	
Aniline	1.146	1.215		-6.0	
Benzyl Alcohol	0.630	0.645		-2.4	
1,2-Diphenylhydrazine	0.972	0.917		5.6	
Diphenyl	1.753	1.693	0.001	3.4	20.0
Diphenyl Ether	0.664	0.644	0.001	3.0	20.0
Acetophenone	1.140	1.078	0.001	5.4	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 625

Instrument ID: BNAMS3 Calibration Date: 04/16/01 Time: 0904
 Lab File ID: T7744 Init. Calib. Date(s): 04/09/01 04/09/01
 Init. Calib. Times: 1008 1324

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N,N-Dimethylaniline	1.341	1.242	0.001	7.4	20.0
1,4-Dioxane	0.337	0.322	0.01	4.4	20.0
2,3,7,8-TCDD (screen)	0.163	0.170		-4.3	20.0
Benzaldehyde	0.538	0.525		2.4	20.0
Caprolactum	0.134	0.146		-9.0	20.0
Atrazine	0.212	0.210		0.9	20.0
2-Fluorophenol (SUR)	0.841	0.841		0.0	
Phenol-d5 (SUR)	1.109	1.136		-2.4	
2,4,6-Tribromophenol (SUR)	0.159	0.155		2.5	20.0
Nitrobenzene-d5 (SUR)	0.355	0.388		-9.3	
2-Fluorobiphenyl (SUR)	1.038	0.993		4.3	
Terphenyl-d14 (SUR)	0.892	0.849		4.8	

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 625

Matrix: WATER

Level: LOW

Lab Job No: J519

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
01	WB096	46	30	102	92	92	94	0
02	266473				85	82	84	0
03	266474				90	82	86	0
04	266475				87	77	81	0
05	266476				89	83	84	0
06	266478				93	86	89	0
07	266480				91	85	83	0
08	266481				94	87	87	0
09	266484				92	92	94	0
10	266477				95	91	94	0
11	266479				78	83	82	0
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

S1	= 2-Fluorophenol	(23- 65)
S2	= Phenol-d5	(12- 44)
S3	= 2,4,6-Tribromophenol	(46-135)
S4	= Nitrobenzene-d5	(43-126)
S5	= 2-Fluorobiphenyl	(46-126)
S6	= Terphenyl-d14	(55-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Matrix Spike - Lab Sample No.: 266469

Level: LOW

MS Sample from Lab Job No: J518

QA Batch: 6257

Compound	MS %	BS %	LIMITS
	REC.	REC.	
bis(2-Chloroethyl)ether	90	79	12-158
1,3-Dichlorobenzene	76	63	0-172
1,4-Dichlorobenzene	77	64	20-124
1,2-Dichlorobenzene	78	66	32-129
bis(2-chloroisopropyl)ether	100	91	36-166
N-Nitroso-di-n-propylamine	91	84	0-230
Hexachloroethane	71	56	40-113
Nitrobenzene	89	82	35-180
Isophorone	87	78	21-196
bis(2-Chloroethoxy)methane	100	90	33-184
1,2,4-Trichlorobenzene	89	77	44-142
Naphthalene	90	81	21-133
Hexachlorobutadiene	75	59	24-116
2-Chloronaphthalene	91	85	60-118
Dimethylphthalate	64	58	0-112
Acenaphthylene	91	83	33-145
2,6-Dinitrotoluene	100	92	50-158
Acenaphthene	91	83	47-145
2,4-Dinitrotoluene	100	93	39-139
Diethylphthalate	83	78	0-114
4-Chlorophenyl-phenylether	91	85	25-158
Fluorene	91	89	59-121
4-Bromophenyl-phenylether	100	91	53-127
Hexachlorobenzene	91	85	0-152
Phenanthrene	100	89	54-120
Anthracene	100	89	27-133
Di-n-butylphthalate	91	86	1-118
Fluoranthene	91	86	26-137
Pyrene	91	87	52-115
Butylbenzylphthalate	87	79	0-152

* Values outside of QC limits

SEMI-VOLATILE SPIKE RECOVERY SUMMARY
METHOD 625

Matrix: WATER

Matrix Spike - Lab Sample No.: 266469

Level: LOW

MS Sample from Lab Job No: J518

QA Batch: 6257

Compound	MS % REC.	BS % REC.	LIMITS
3,3'-Dichlorobenzidine	89	79	0-262
Benzo(a)anthracene	100	90	33-143
Chrysene	100	89	17-168
bis(2-Ethylhexyl)phthalate	89	88	8-158
Di-n-octylphthalate	91	89	4-146
Benzo(b)fluoranthene	91	86	24-159
Benzo(k)fluoranthene	100	94	11-162
Benzo(a)pyrene	100	92	17-163
Indeno(1,2,3-cd)pyrene	91	88	0-171
Dibenz(a,h)anthracene	100	89	0-227
Benzo(g,h,i)perylene	100	92	0-219

* Values outside of QC limits

Spike Recovery: 0 out of 82 outside limits

COMMENTS: _____

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard) : T7621

Date Analyzed: 04/09/01

Instrument ID: BNAMS3

Time Analyzed: 1008

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (CRY) AREA #	RT #
12 HOUR STD	523990	13.15	1670998	15.34	920588	25.18
UPPER LIMIT	1047980	13.65	3341996	15.84	1841176	25.68
LOWER LIMIT	261995	12.65	835499	14.84	460294	24.68
LABORATORY SAMPLE NO.						
WB096	502502	13.14	1590590	15.32	1031259	25.16
01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

SEMOVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T7621

Date Analyzed: 04/09/01

Instrument ID: BNAMS3

Time Analyzed: 1008

	IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	932469	18.27	1283915	20.74	857576	28.83
UPPER LIMIT	1864938	18.77	2567830	21.24	1715152	29.33
LOWER LIMIT	466234	17.77	641958	20.24	428788	28.33
LABORATORY SAMPLE NO.						
01 WB096	1027500	18.26	1285303	20.73	906662	28.80
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (ANT) = Acenaphthene-d10

IS5 (PHN) = Phenanthrene-d10

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T7713

Date Analyzed: 04/12/01

Instrument ID: BNAMS3

Time Analyzed: 1123

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (CRY) AREA #	RT #
12 HOUR STD	589298	13.13	1784568	15.32	981422	25.17
UPPER LIMIT	1178596	13.63	3569136	15.82	1962844	25.67
LOWER LIMIT	294649	12.63	892284	14.82	490711	24.67
LABORATORY SAMPLE NO.						
01 266473	457300	13.14	1472270	15.32	952857	25.15
02 266474	509265	13.14	1634674	15.32	1067540	25.16
03 266475	500173	13.13	1539787	15.32	1049714	25.16
04 266476	502568	13.14	1588126	15.32	1019509	25.16
05 266478	508617	13.14	1603312	15.32	1023146	25.16
06 266480	486483	13.14	1535471	15.32	931628	25.16
07 266481	495352	13.14	1530031	15.32	949181	25.15
08 266484	480197	13.14	1492636	15.32	938832	25.15
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

SEMOVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T7713

Date Analyzed: 04/12/01

Instrument ID: BNAMS3

Time Analyzed: 1123

	IS4 (ANT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	1109564	18.25	1343646	20.72	872098	28.81
UPPER LIMIT	2219128	18.75	2687292	21.22	1744196	29.31
LOWER LIMIT	554782	17.75	671823	20.22	436049	28.31
LABORATORY SAMPLE NO.						
01 266473	966192	18.26	1214136	20.72	748524	28.79
02 266474	1100002	18.26	1375375	20.72	842531	28.80
03 266475	1070042	18.26	1325541	20.72	826406	28.80
04 266476	1048647	18.26	1316359	20.72	813915	28.80
05 266478	1064925	18.26	1306987	20.72	827933	28.80
06 266480	980680	18.26	1209514	20.72	759362	28.80
07 266481	985168	18.26	1235596	20.72	763426	28.79
08 266484	973759	18.26	1190847	20.72	776861	28.79
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (ANT) = Acenaphthene-d10

IS5 (PHN) = Phenanthrene-d10

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

SEMICVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): T7744

Date Analyzed: 04/16/01

Instrument ID: BNAMS3

Time Analyzed: 0904

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
12 HOUR STD	557061	13.13	1649915	15.32	964062	25.17
UPPER LIMIT	1114122	13.63	3299830	15.82	1928124	25.67
LOWER LIMIT	278530	12.63	824958	14.82	482031	24.67
LABORATORY SAMPLE NO.						
01 266477	466926	13.13	1489075	15.31	948251	25.14
02 266479	477047	13.12	1517465	15.31	981244	25.14
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard) : T7744

Date Analyzed: 04/16/01

Instrument ID: BNAMS3

Time Analyzed: 0904

	IS4 (ANT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	1058893	18.25	1367177	20.72	867696	28.80
UPPER LIMIT	2117786	18.75	2734354	21.22	1735392	29.30
LOWER LIMIT	529446	17.75	683588	20.22	433848	28.30
LABORATORY SAMPLE NO.						
01 266477	977835	18.24	1245048	20.71	853172	28.77
02 266479	997414	18.25	1226337	20.71	873023	28.77
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (ANT) = Acenaphthene-d10

IS5 (PHN) = Phenanthrene-d10

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

Client ID: MW-15I
Site: L.E. Carpenter

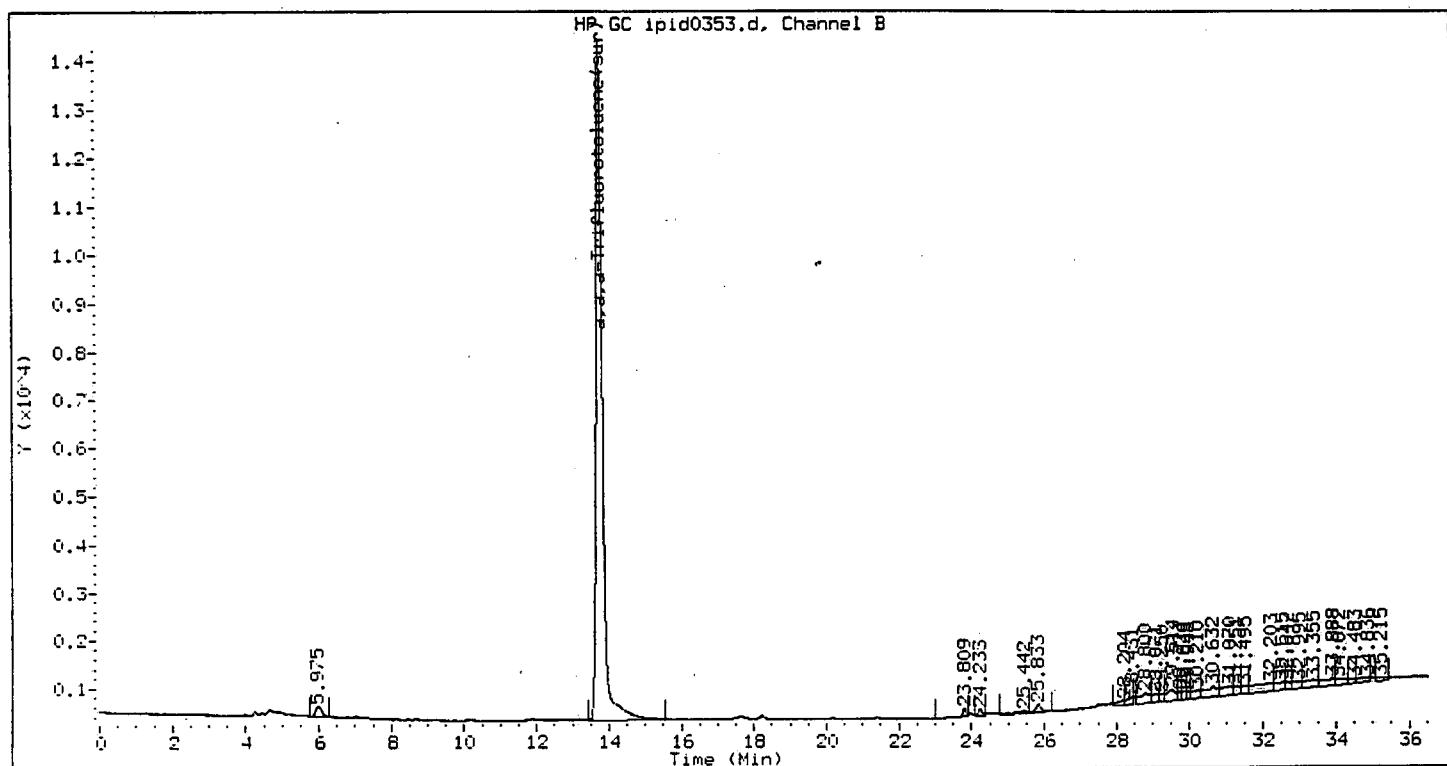
Lab Sample No: 266473
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/06/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0353.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266473

Lab ID : 266473

Inst ID : VOAGC3.i

Inj Date : 06-APR-2001 21:41

Dil Factor : 1

Operator : VV

Sample Matrix : WATER

Cpnd Sublist: BTEX

Sample Type: SAMPLE

JXZ

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene(sur)	13.756	13.749	0.007	830814	30.087	30.087

Client ID: MW-15S
Site: L.E. Carpenter

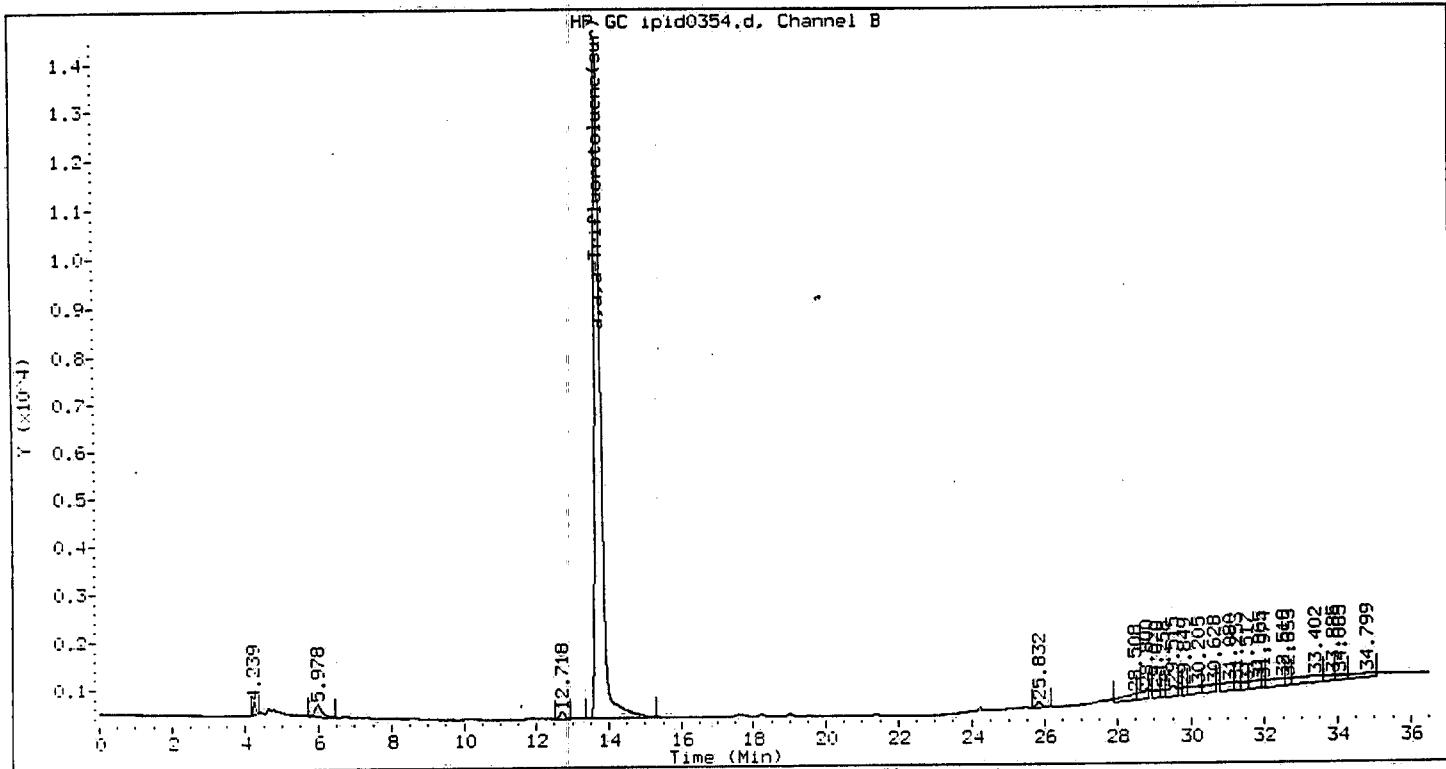
Lab Sample No: 266474
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/06/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0354.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266474

Lab ID : 266474

Inj Date : 06-APR-2001 22:21

Operator : VV

Cpnd Sublist: BTEX

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: SAMPLE

Jxt

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene(sur)	13.753	13.749	0.005	831236	30.102	30.102

Client ID: MW-17S
Site: L.E. Carpenter

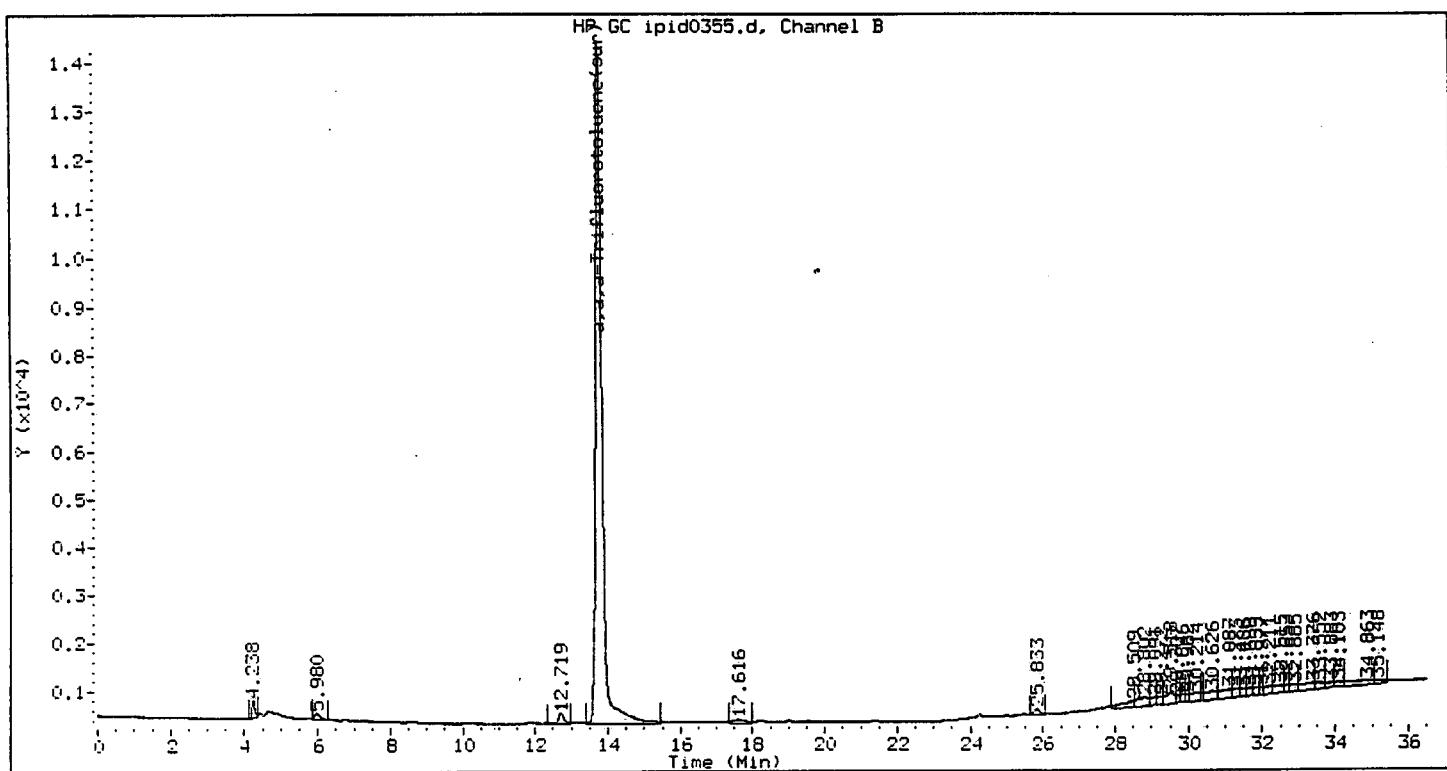
Lab Sample No: 266475
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/06/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0355.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266475

Lab ID : 266475

Inj Date : 06-APR-2001 23:01

Operator : VV

Cpnd Sublist: BTEX

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: SAMPLE

JXZ

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
a,a,a-Trifluorotoluene(sur)	13.756	13.749	0.007	833987	30.202	30.202

Client ID: MW-4
Site: L.E. Carpenter

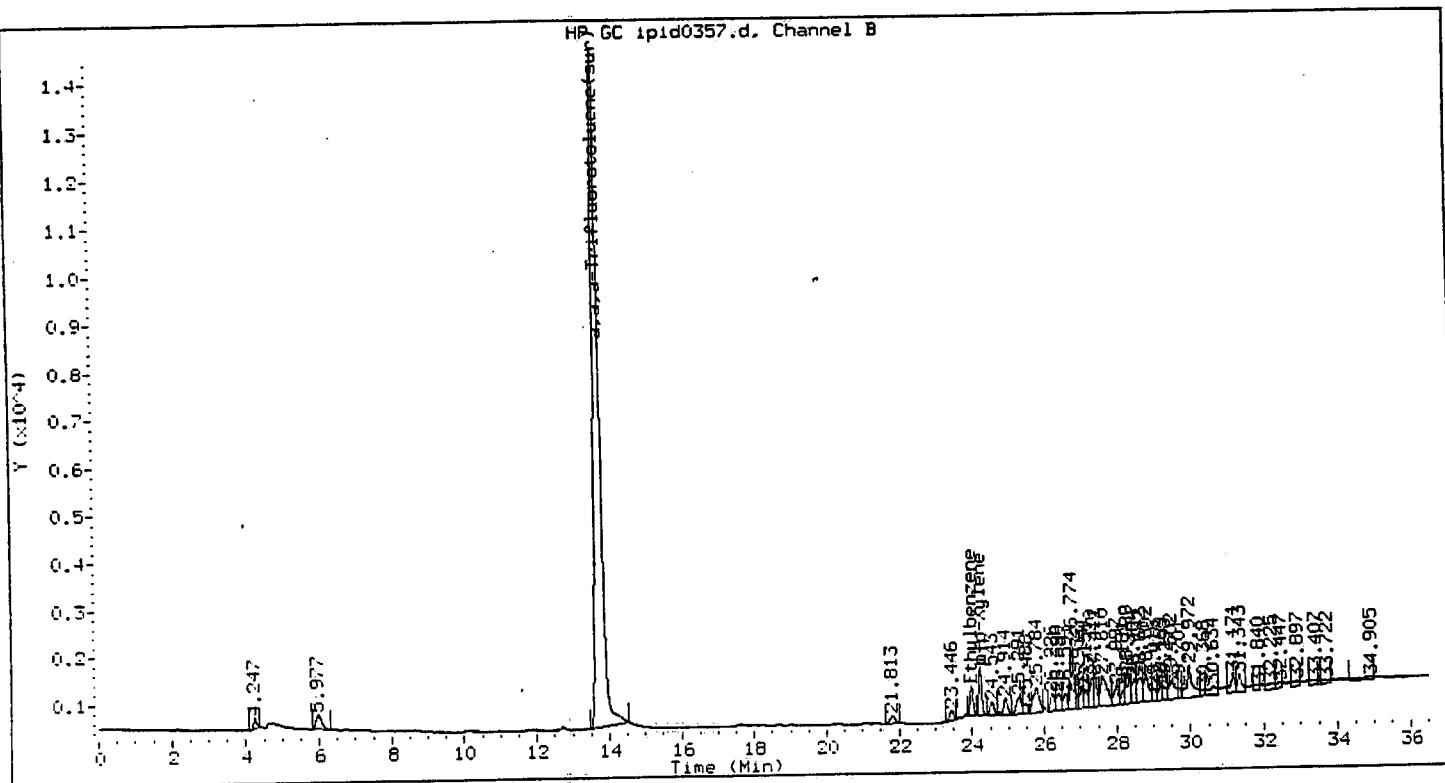
Lab Sample No: 266477
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0357.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	0.31	0.26
Xylene (Total)	0.41	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266477

Lab ID : 266477

Inj Date : 07-APR-2001 00:21

Operator : VV

Cpnd Sublist: BTEX

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: SAMPLE

J X Z

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL (ug/L)
m+p-Xylene	24.229	24.223	0.006	29304	0.394	0.394
Ethylbenzene	23.990	23.986	0.004	18756	0.311	0.311
Xylene (Total)	25.019	25.019	0.000	29304	0.415	0.415
a,a,a-Trifluorotoluene(sur)	13.754	13.749	0.005	802067	29.046	29.046

Client ID: MW-14I
Site: L.E. Carpenter

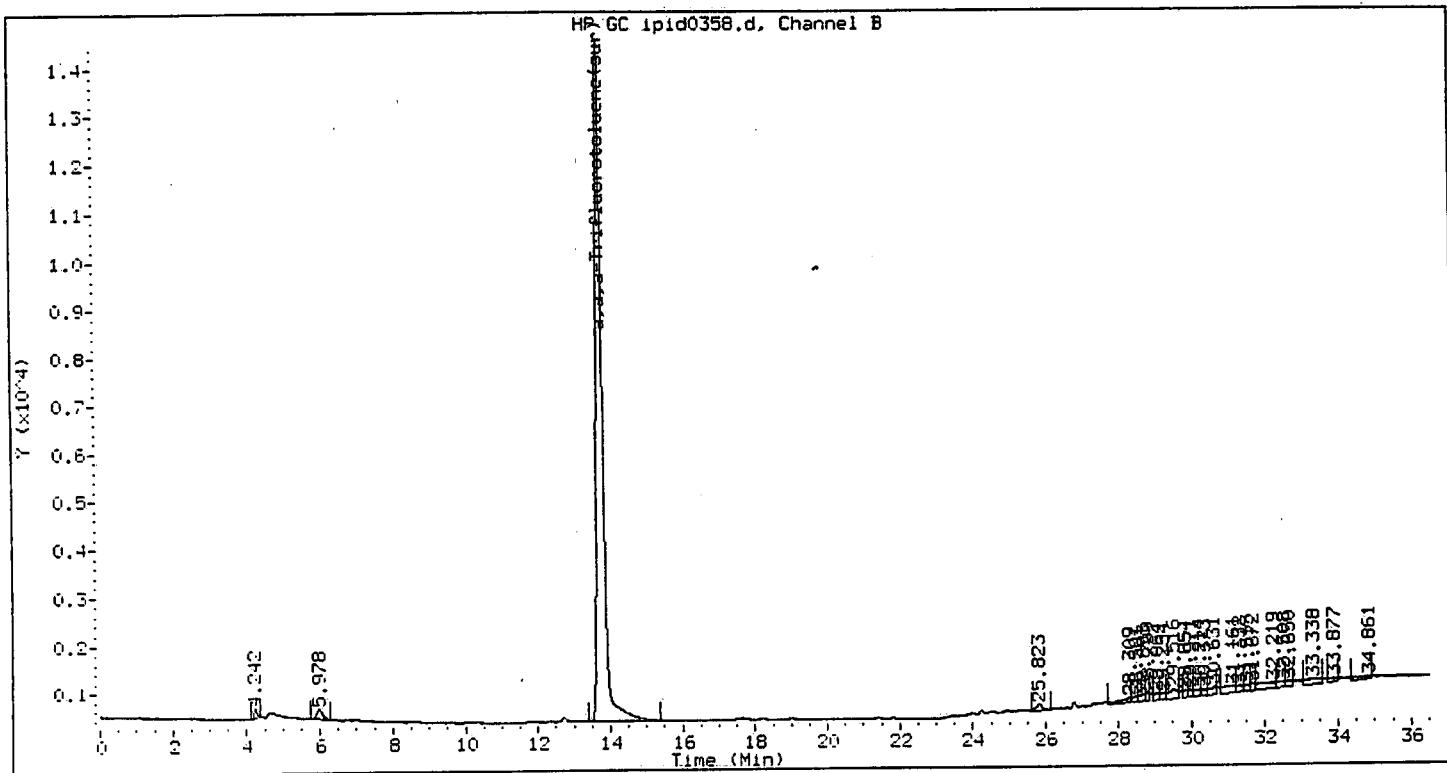
Lab Sample No: 266478
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0358.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266478

Lab ID : 266478

Inj Date : 07-APR-2001 01:01

Operator : VV

Cpnd Sublist: BTEX

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: SAMPLE

J X 2

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene(sur)	13.755	13.749	0.006	831810	30.123	30.123

Client ID: MW-22
Site: L.E. Carpenter

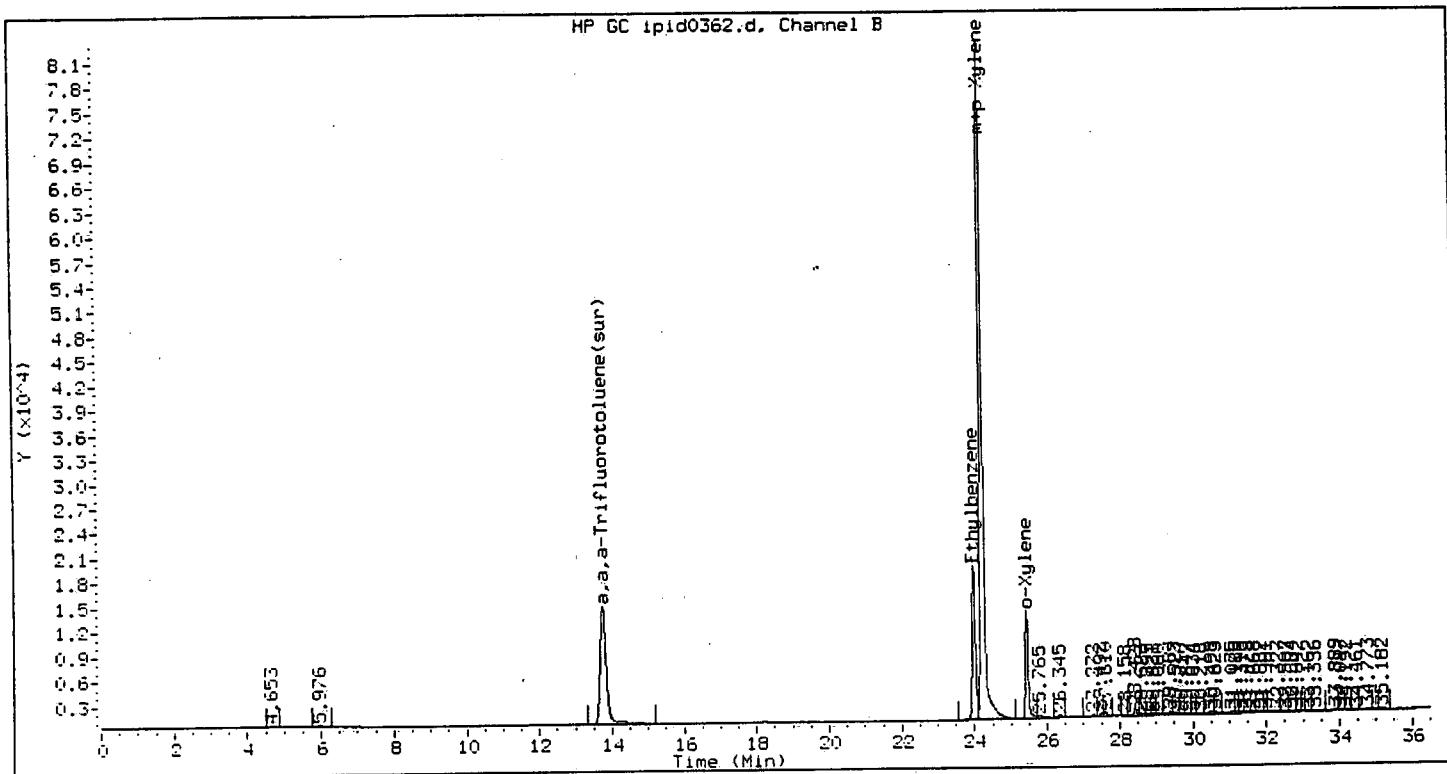
Lab Sample No: 266479
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0362.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 100.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	28
Toluene	ND	26
Ethylbenzene	910	26
Xylene (Total)	4100	25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266479;;100

Lab ID : 266479

Inj Date : 07-APR-2001 03:42

Operator : VV

Cpnd Sublist: BTEX

Inst ID : VOAGC3.i

Dil Factor : 100

Sample Matrix : WATER

Sample Type: SAMPLE

7 X2

Compounds	CONCENTRATIONS				(ug/L)	(ug/L)
	RT	EXP RT	DLT RT	RESPONSE		
m+p-Xylene	24.231	24.223	0.008	2574708	34.636	3463.591
o-Xylene	25.436	25.431	0.005	349312	5.526	552.608
Ethylbenzene	23.992	23.986	0.006	550568	9.126	912.554
Xylene (Total)	25.019	25.019	0.000	2924020	41.400	4140.024
a,a,a-Trifluorotoluene(sur)	13.759	13.749	0.010	842803	30.521	30.521

Client ID: MW-25
Site: L.E. Carpenter

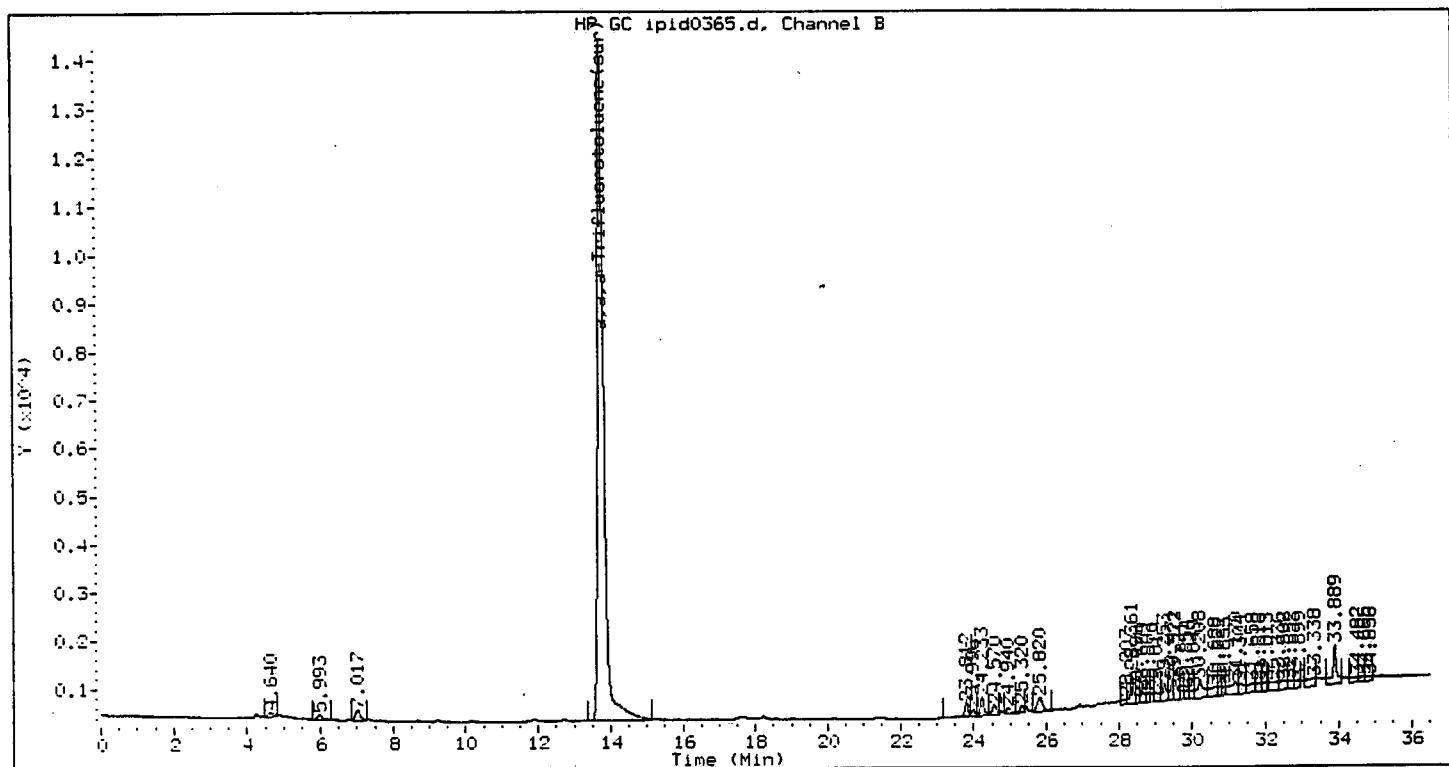
Lab Sample No: 266480
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0365.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266480

Lab ID : 266480

Inj Date : 07-APR-2001 05:42

Operator : VV

Cpnd Sublist: BTEX

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: SAMPLE

J X 2

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene (our)	13.758	13.749	0.009	819460	29.676	29.676

Client ID: MW-21
Site: L.E. Carpenter

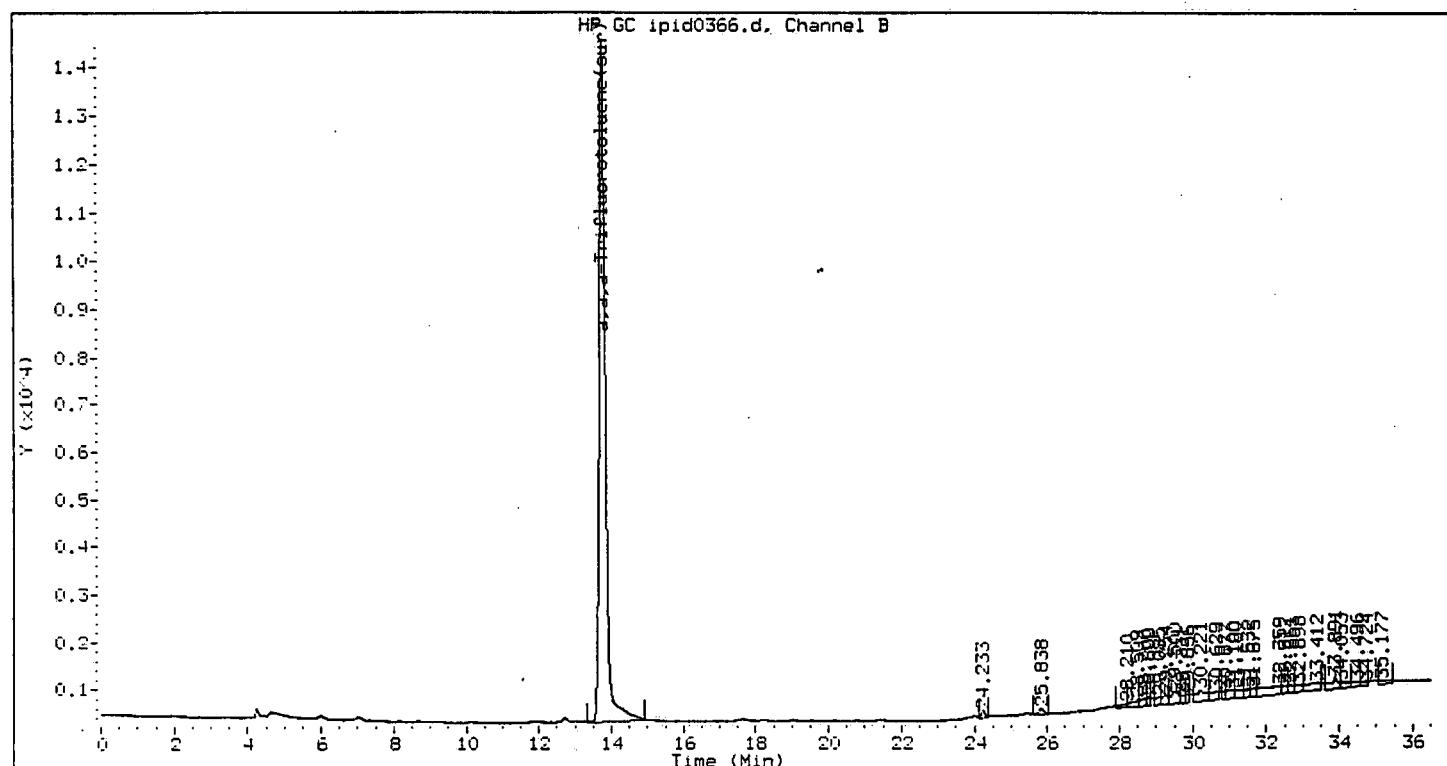
Lab Sample No: 266481
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0366.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266481

Lab ID : 266481

Inst ID : VOAGC3.i

Inj Date : 07-APR-2001 06:22

Dil Factor : 1

Operator : VV

Sample Matrix : WATER

Cpnd Sublist: BTEX

Sample Type: SAMPLE

J XZ

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene(sur)	13.758	13.749	0.009	826704	29.938	29.938

Client ID: MW-141d
Site: L.E. Carpenter

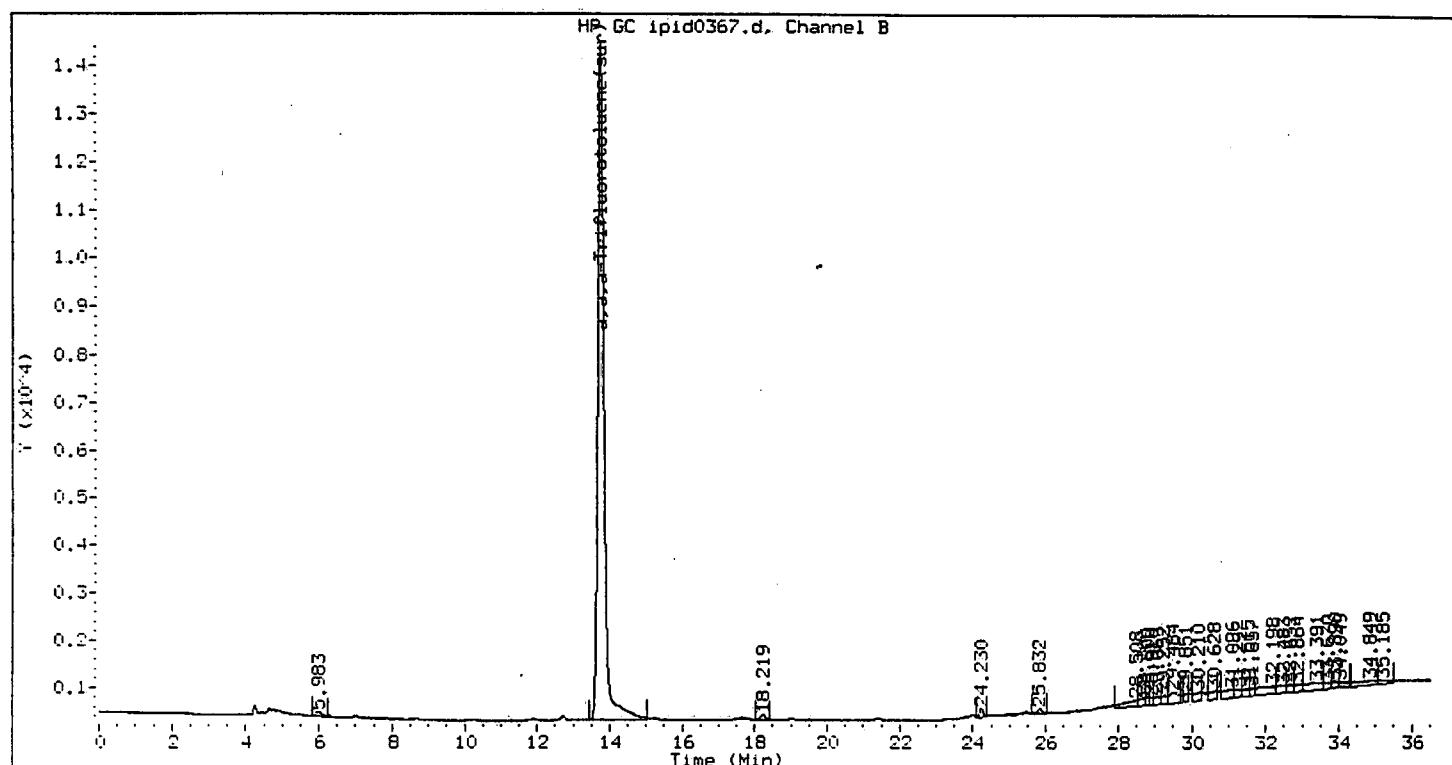
Lab Sample No: 266482
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0367.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266482

Lab ID : 266482

Inst ID : VOAGC3.i

Inj Date : 07-APR-2001 07:02

Dil Factor : 1

Operator : VV

Sample Matrix : WATER

Cpnd Sublist: BTEX

Sample Type: SAMPLE

J X Z

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene (sur)	13.754	13.749	0.005	827023	29.950	29.950

Client ID: Trip_Blank
Site: L.E. Carpenter

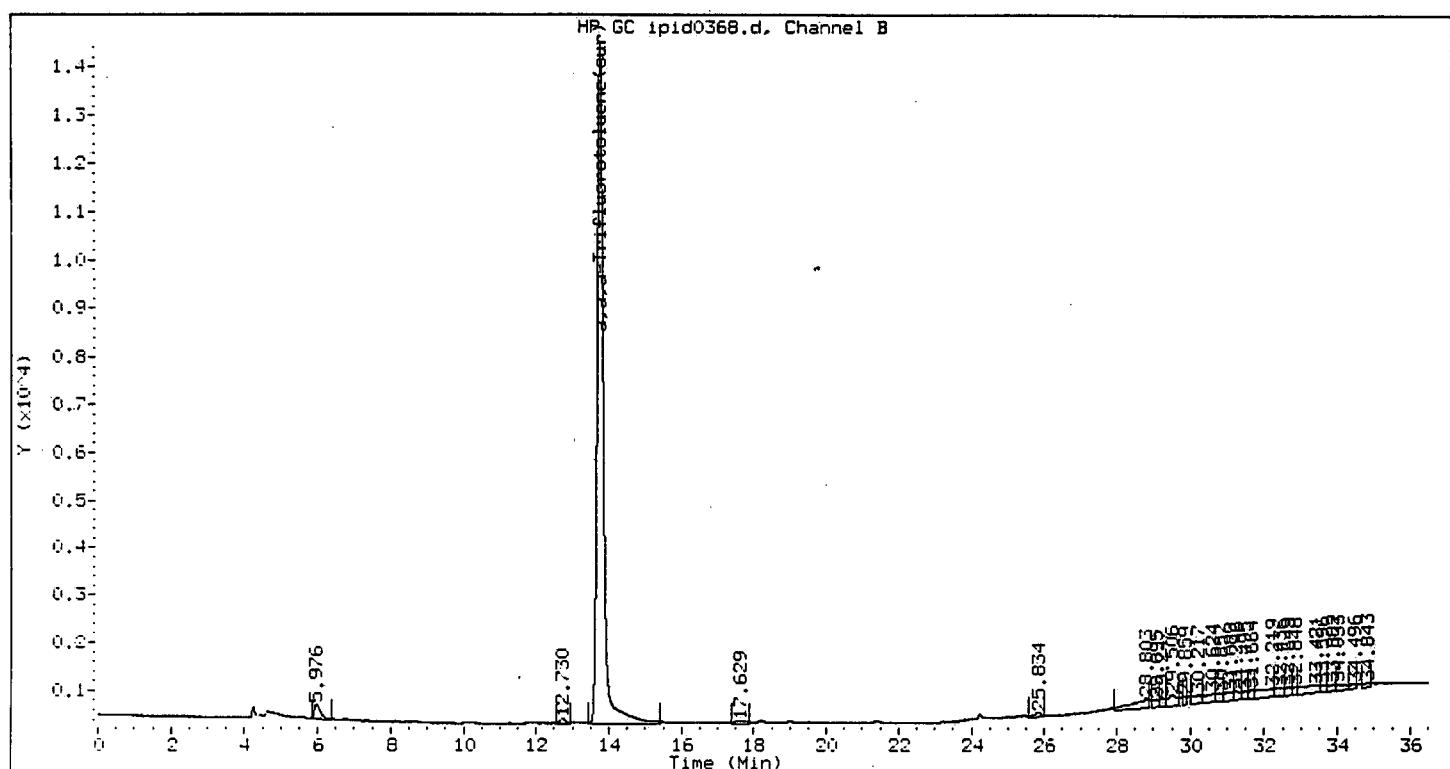
Lab Sample No: 266483
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0368.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection Limit</u> <u>Units: ug/l</u>
Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266483

Lab ID : 266483

Inst ID : VOAGC3.i

Inj Date : 07-APR-2001 07:42

Dil Factor : 1

Operator : VV

Sample Matrix : WATER

Cpnd Sublist: BTEX

Sample Type: SAMPLE

J X Z

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene(sur)	13.756	13.749	0.007	842455	30.508	30.508

Client ID: Field_Blank
Site: L.E. Carpenter

Lab Sample No: 266484
Lab Job No: J519

Date Sampled: 04/02/01
Date Received: 04/02/01
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0369.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Final Volume: 0.0 mL
Dilution Factor: 1.0

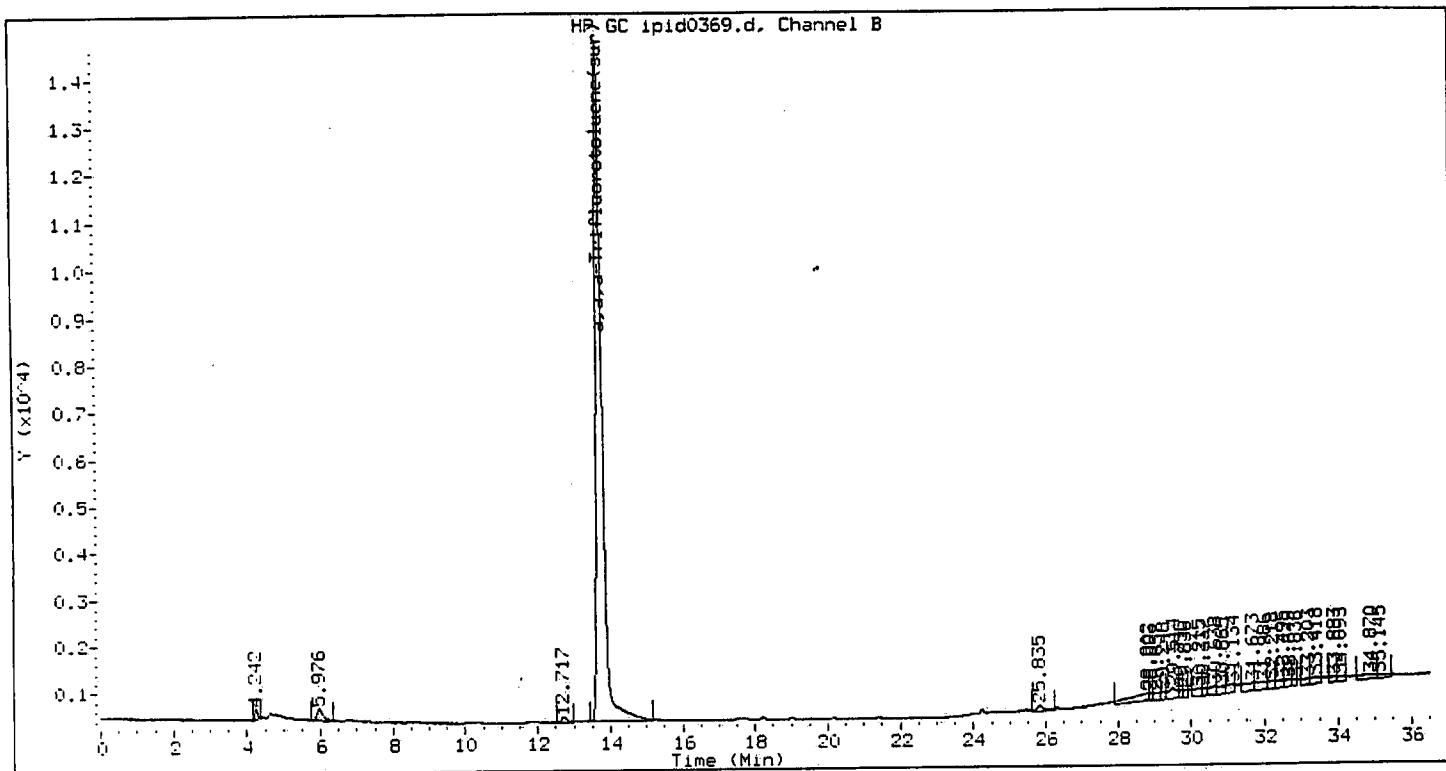
VOLATILE ORGANICS - GC/PID
METHOD 602

Parameter

Analytical Result
Units: ug/l

Method Detection
Limit
Units: ug/l

Benzene	ND	0.28
Toluene	ND	0.26
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : 266484

Lab ID : 266484

Inj Date : 07-APR-2001 08:22

Operator : VV

Cpnd Sublist: BTEX

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

Sample Type: SAMPLE

J X 2

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL
a,a,a-Trifluorotoluene(sur)	13.754	13.749	0.006	846667	30.661	30.661

VOLATILE METHOD BLANK SUMMARY

LAB SAMPLE NO.

IG096

Date Analyzed: 04/06/01

Instrument ID: VOAGC3

Time Analyzed: 1220

Lab File ID: IPID0339

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01 MW-15I	266473	IPID0353	2141
02 MW-15S	266474	IPID0354	2221
03 MW-17S	266475	IPID0355	2301
04 MW-4	266477	IPID0357	0021
05 MW-14I	266478	IPID0358	0101
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

COMMENTS:

page 1 of 1

Client ID: IG096
Site:

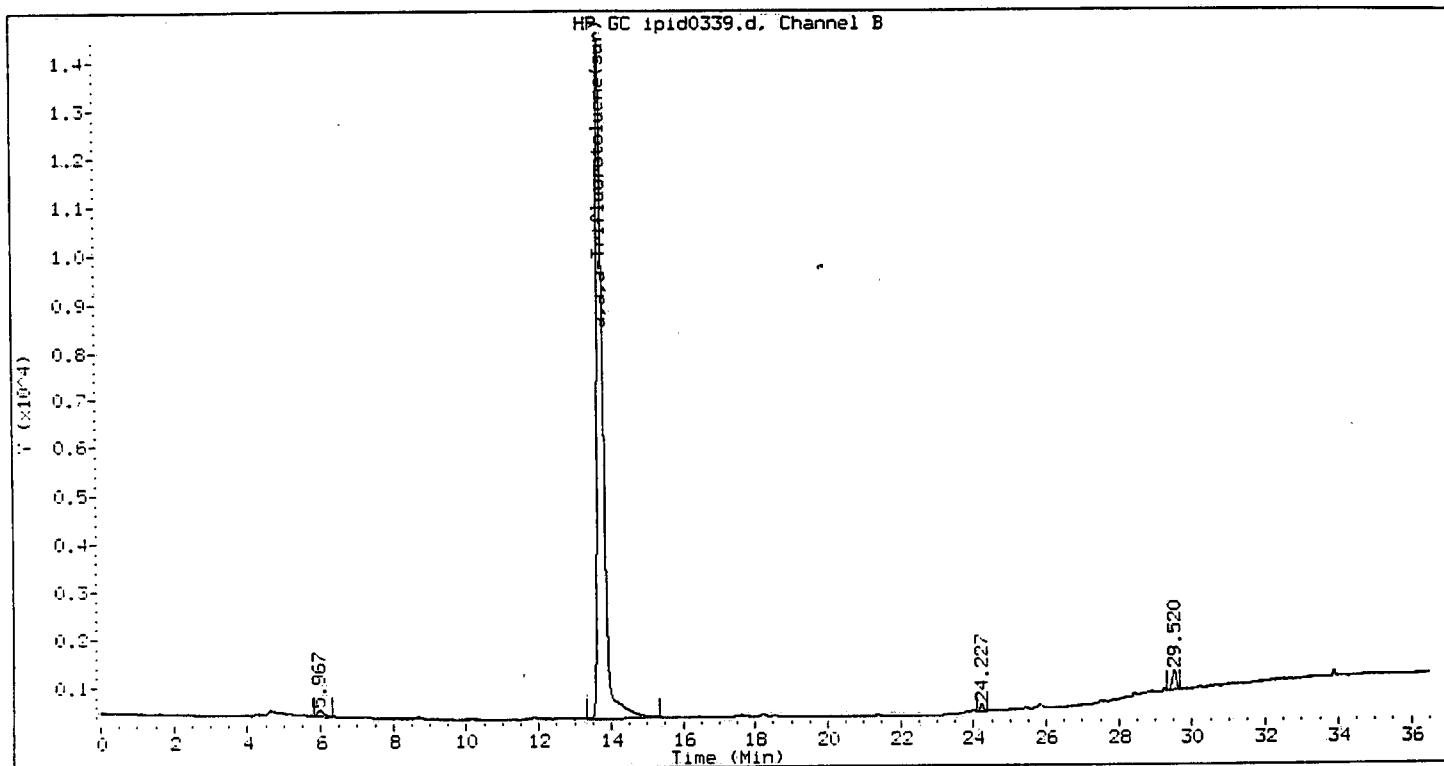
Lab Sample No: IG096
Lab Job No: J519

Date Sampled: _____
Date Received: _____
Date Analyzed: 04/06/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0339.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
TBA	ND	18
MTBE	ND	0.24
DIPE	ND	0.22
Benzene	ND	0.28
Toluene	ND	0.26
Chlorobenzene	ND	0.23
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25
1,3-Dichlorobenzene	ND	0.28
1,4-Dichlorobenzene	ND	0.25
1,2-Dichlorobenzene	ND	0.28
Naphthalene	ND	0.21



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : IG096

Lab ID : IG096

Inj Date : 06-APR-2001 12:20

Inst ID : VOAGC3.i

Dil Factor : 1

Operator : VV

Sample Matrix : WATER

Cpnd Sublist: all

Sample Type: BLANK

JXZ

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.748	13.749	0.001	828117	29.989	29.989

VOLATILE METHOD BLANK SUMMARY

IG096A

Date Analyzed: 04/07/01

Instrument ID: VOAGC3

Time Analyzed: 0301

Lab File ID: IPID0361

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01 MW-22	266479	IPID0362	0342
02 MW-22MS	266479MS	IPID0363	0422
03 MW-22MSD	266479MSD	IPID0364	0502
04 MW-25	266480	IPID0365	0542
05 MW-21	266481	IPID0366	0622
06 MW-141D	266482	IPID0367	0702
07 TRIP_BLANK	266483	IPID0368	0742
08 FIELD_BLANK	266484	IPID0369	0822
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

COMMENTS:

Client ID: IG096A
Site:

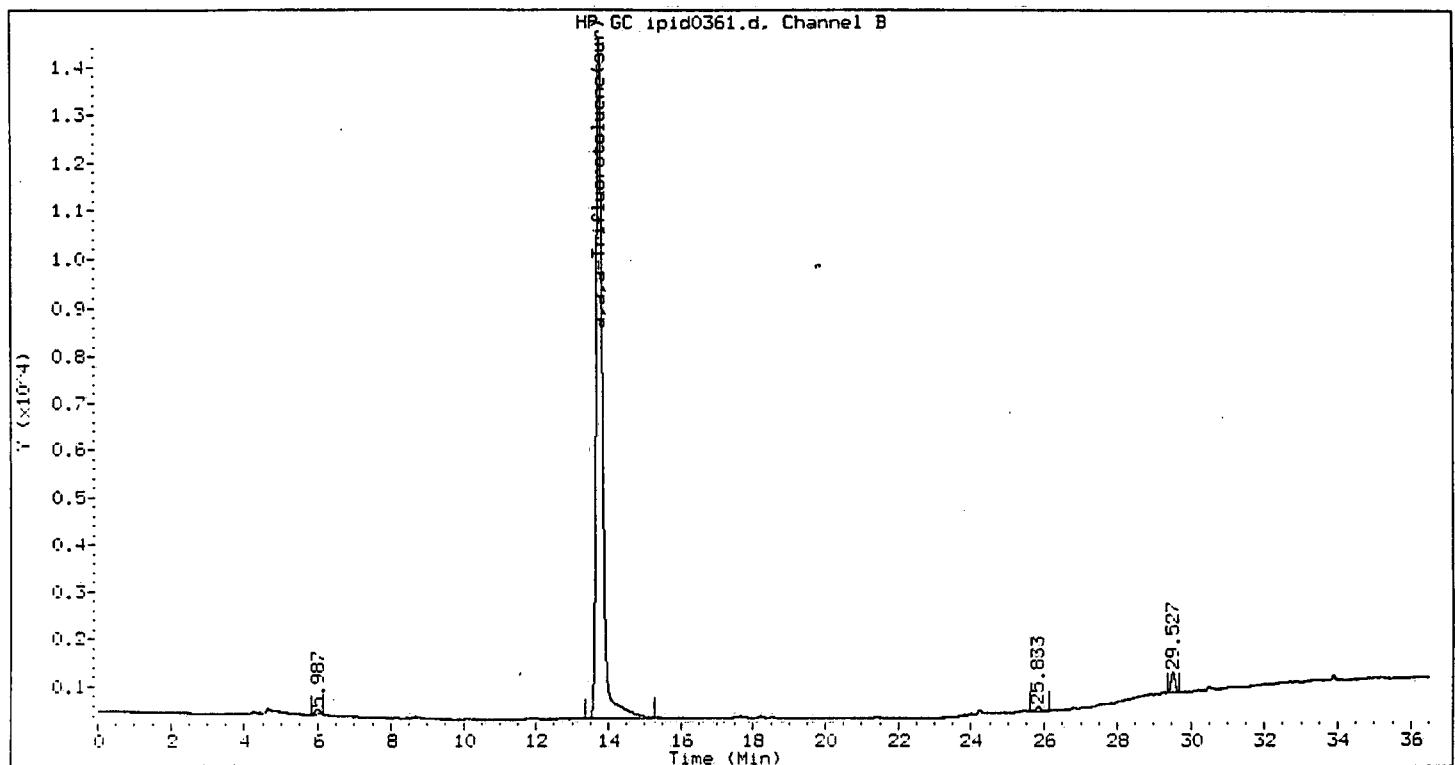
Lab Sample No: IG096A
Lab Job No: J519

Date Sampled: _____
Date Received: _____
Date Analyzed: 04/07/01
GC Column: DB624
Instrument ID: VOAGC3.i
Lab File ID: ipid0361.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 mL
Final Volume: 0.0 mL
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/PID
METHOD 602

<u>Parameter</u>	<u>Analytical Result</u>	<u>Method Detection Limit</u>
	<u>Units: ug/l</u>	<u>Units: ug/l</u>
TBA	ND	18
MTBE	ND	0.24
DIPE	ND	0.22
Benzene	ND	0.28
Toluene	ND	0.26
Chlorobenzene	ND	0.23
Ethylbenzene	ND	0.26
Xylene (Total)	ND	0.25
1,3-Dichlorobenzene	ND	0.28
1,4-Dichlorobenzene	ND	0.25
1,2-Dichlorobenzene	ND	0.28
Naphthalene	ND	0.21



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m *JXZ*

Sample Info : IG096A

Lab ID : IG096A

Inst ID : VOAGC3.i

Inj Date : 07-APR-2001 03:01

Dil Factor : 1

Operator : VV

Sample Matrix : WATER

Cpnd Sublist: all

Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
a,a,a-Trifluorotoluene(sur)	13.758	13.749	0.009	835589	30.260	30.260

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

Calibration Date(s) : 04/02/01 04/02/01

Calibration Time(s) : 0956 1813

LAB FILE ID:	RRF2: IPID0240 RRF20: IPID0232		RRF5: IPID0234 RRF40: IPID0237		RRF10: IPID0243
COMPOUND	RRF2	RRF5	RRF10	RRF20	RRF40
TBA **	240	274	268	282	
MTBE	28010	29898	29265	29770	28293
DIPE	35729	38747	38254	38590	37857
Benzene	83424	85076	84257	83217	83888
Toluene	71120	77154	75364	73932	74051
Chlorobenzene	79016	79543	77363	76580	76662
Ethylbenzene	61856	61784	59962	59265	58795
Xylene (Total)	71373	71476	68817	68846	72628
1,3-Dichlorobenzene	53666	56951	53964	56018	50094
1,4-Dichlorobenzene	69836	67777	63376	62651	62716
1,2-Dichlorobenzene	42285	47734	45376	47817	46967
Naphthalene	35280	37260	33610	32316	35716
a,a,a-Trifluorotoluene (sur)	26720	27878	27885	28068	27519

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC3

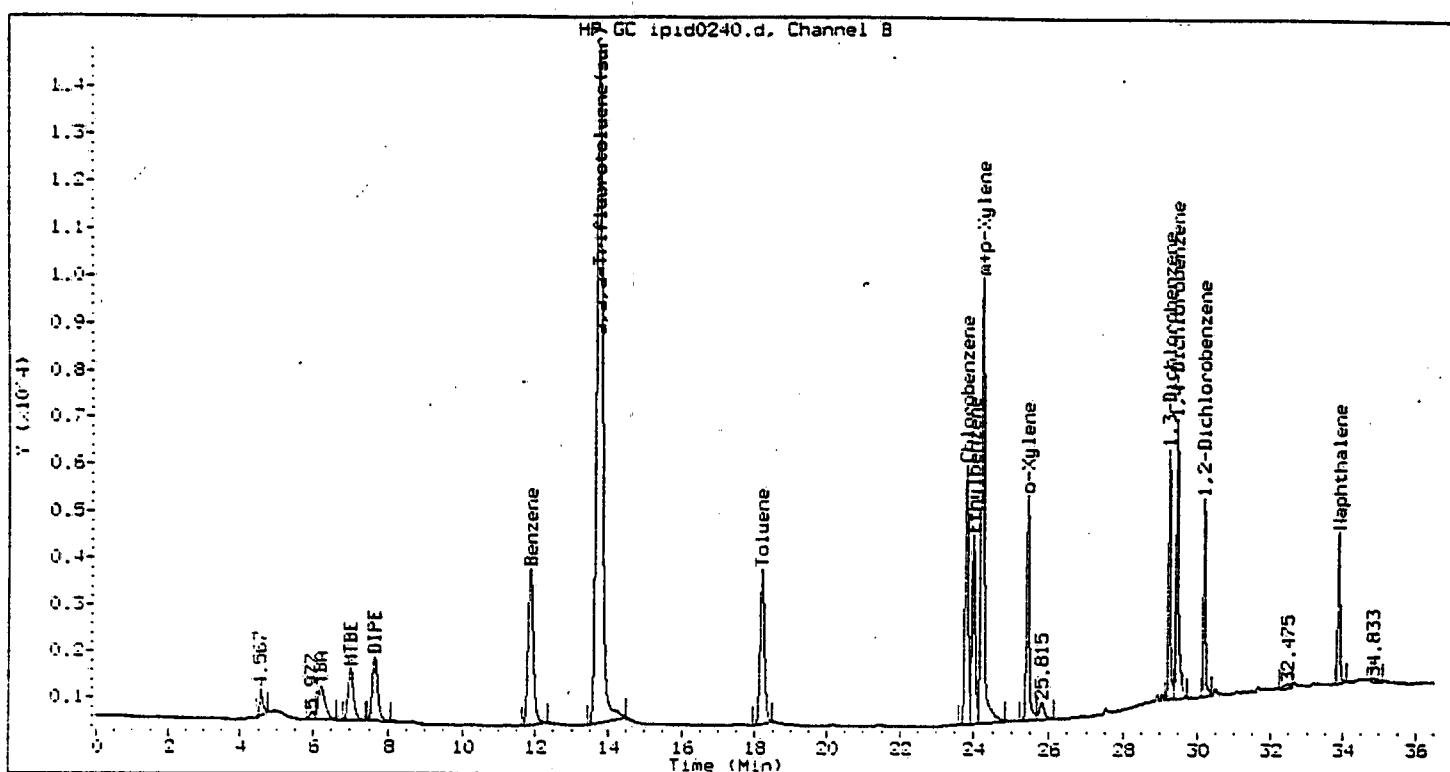
Calibration Date(s) : 04/02/01 04/02/01

Calibration Time(s) : 0956 1813

COMPOUND	CURVE	COEFFICIENT	%RSD
		A1	OR R^2
TBA **	AVRG	266	6.8*
MTBE	AVRG	29047	3.0*
DIPE	AVRG	37836	3.2*
Benzene	AVRG	83972	0.9*
Toluene	AVRG	74324	3.0*
Chlorobenzene	AVRG	77833	1.8*
Ethylbenzene	AVRG	60333	2.4*
Xylene (Total)	AVRG	70628	2.4*
1,3-Dichlorobenzene	AVRG	54138	4.9*
1,4-Dichlorobenzene	AVRG	65271	5.1*
1,2-Dichlorobenzene	AVRG	46036	5.0*
Naphthalene	AVRG	34836	5.5*
a,a,a-Trifluorotoluene (sur)	AVRG	27614	1.9*

** TBA Calibration Levels are RF200, RF400, RF1000, and RF2000

* Compounds with required maximum %RSD values.



Method : /chem/VOAGC3.i/602/04-02-01/02apr01.b/602_01.m

Sample Info : ISTD002

Lab ID : ISTD002

Inj Date : 02-APR-2001 16:13

Operator : VV

Cpnd Sublist: all

Inst ID : VOAGC3.i

Dil Factor : 1

Sample Matrix : WATER

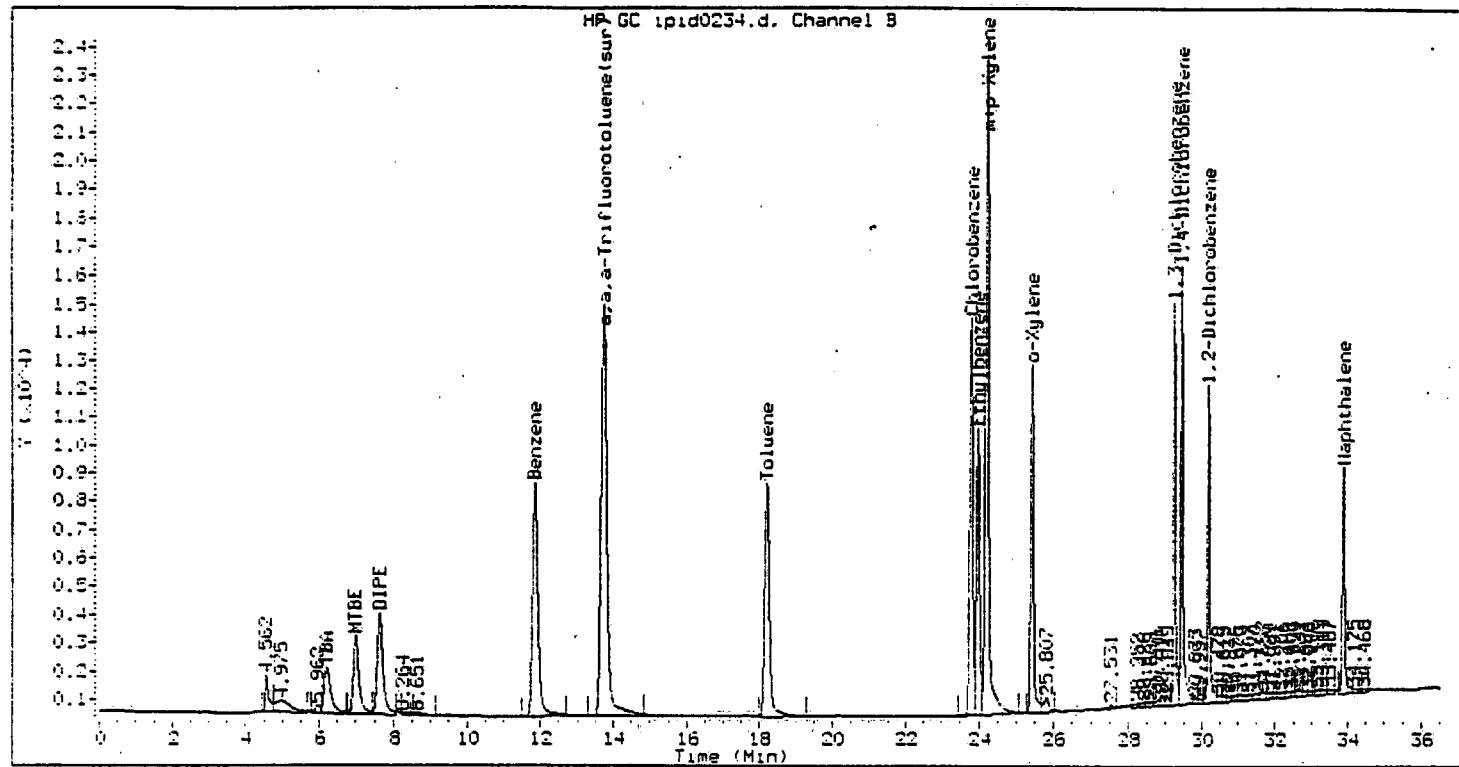
Sample Type: CALIB_1

CONCENTRATIONS

ON-COLUMN FINAL

Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
o-Xylene	25.432	25.428	0.003	128413	2.031	2.031
m+p-Xylene	24.223	24.220	0.004	299826	4.033	4.033
TBA	6.212	6.201	0.011	47952	180.499	180.499
MTBE	7.012	7.001	0.012	56019	1.929	1.929
DIPE	7.650	7.643	0.007	71458	1.889	1.889
Benzene	11.873	11.867	0.006	166847	1.987	1.987
Toluene	18.214	18.208	0.006	142240	1.914	1.914
Chlorobenzene	23.801	23.798	0.003	158031	2.030	2.030
Ethylbenzene	23.986	23.983	0.003	123713	2.051	2.051

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	428239	6.063	6.063
1,3-Dichlorobenzene	29.245	29.241	0.004	107332	1.983	1.983
1,4-Dichlorobenzene	29.456	29.451	0.005	139672	2.140	2.140
1,2-Dichlorobenzene	30.200	30.195	0.005	84570	1.837	1.837
Naphthalene	33.879	33.873	0.006	70559	2.025	2.025
a,a,a-Trifluorotoluene(sur)	13.750	13.744	0.006	801596	29.029	29.029



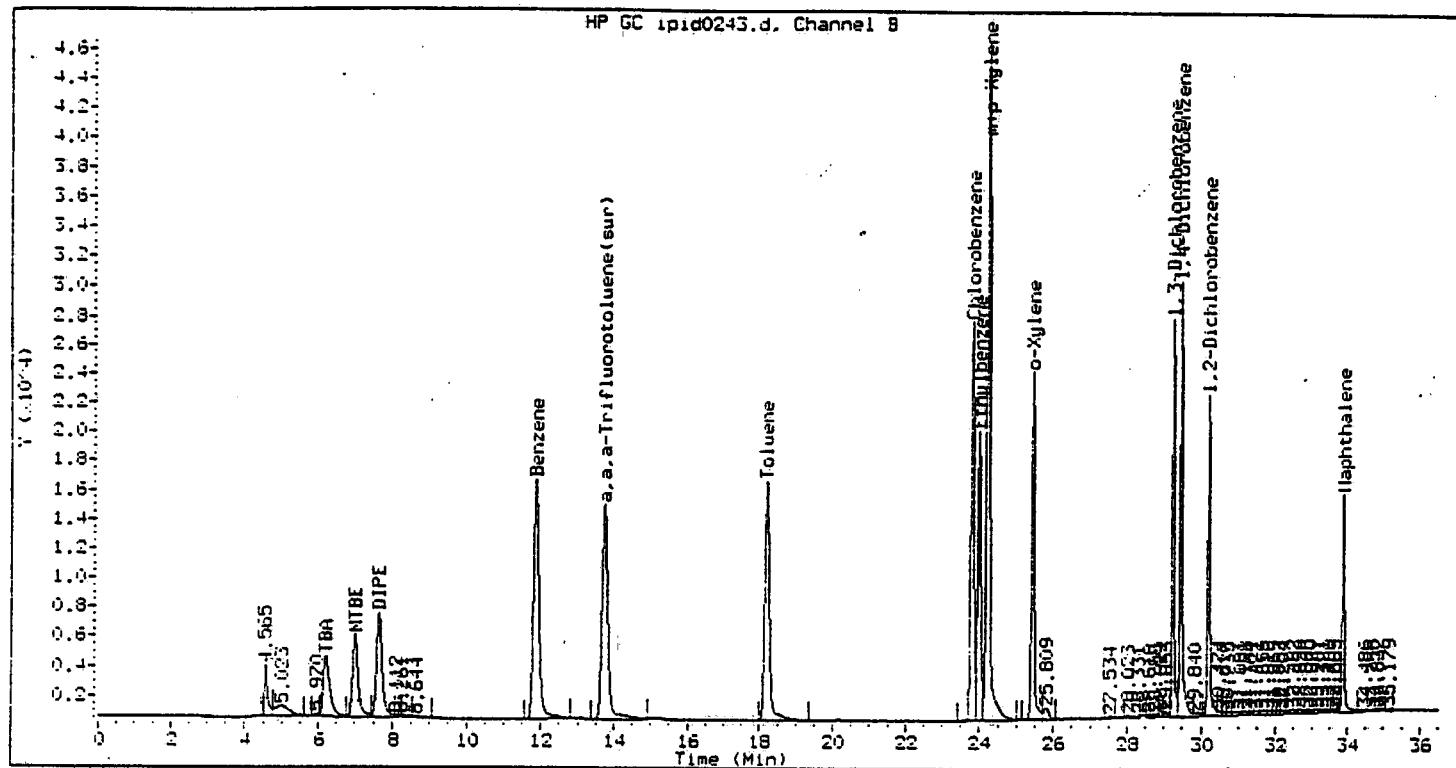
Method : /chem/VOAGC3.i/602/04-02-01/02apr01.b/602_01.m
Sample Info : ISTD005
Lab ID : ISTD005
Inst ID : VOAGC3.i
Inj Date : 02-APR-2001 12:12
Dil Factor : 1
Operator : VV
Sample Matrix : WATER
Cpnd Sublist: all
Sample Type: CALIB_2

Compounds	RT	EXP RT	DLT RT	CONCENTRATIONS	
				ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.427	25.428	0.001	322590	5.103
m+p-Xylene	24.218	24.220	0.002	749553	10.083
TBA	6.208	6.201	0.006	109516	412.337
MTBE	6.999	7.001	0.001	149491	5.146
DiPE	7.641	7.643	0.002	193737	5.120
Benzene	11.864	11.867	0.003	425381	5.066
Toluene	18.205	18.208	0.002	385772	5.190
Chlorobenzene	23.797	23.798	0.001	397716	5.110
Ethylbenzene	23.981	23.983	0.001	308919	5.120

CONCENTRATIONS

ON-COLUMN FINAL
(ug/L) (ug/L)

Compounds	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	1072143	15.180	15.180
1,3-Dichlorobenzene	29.240	29.241	0.001	284757	5.260	5.260
1,4-Dichlorobenzene	29.451	29.451	0.000	338887	5.192	5.192
1,2-Dichlorobenzene	30.195	30.195	0.000	238671	5.184	5.184
Naphthalene	33.872	33.873	0.001	186300	5.348	5.348
a,a,a-Trifluorotoluene(sur)	13.741	13.744	0.003	836332	30.287	30.287

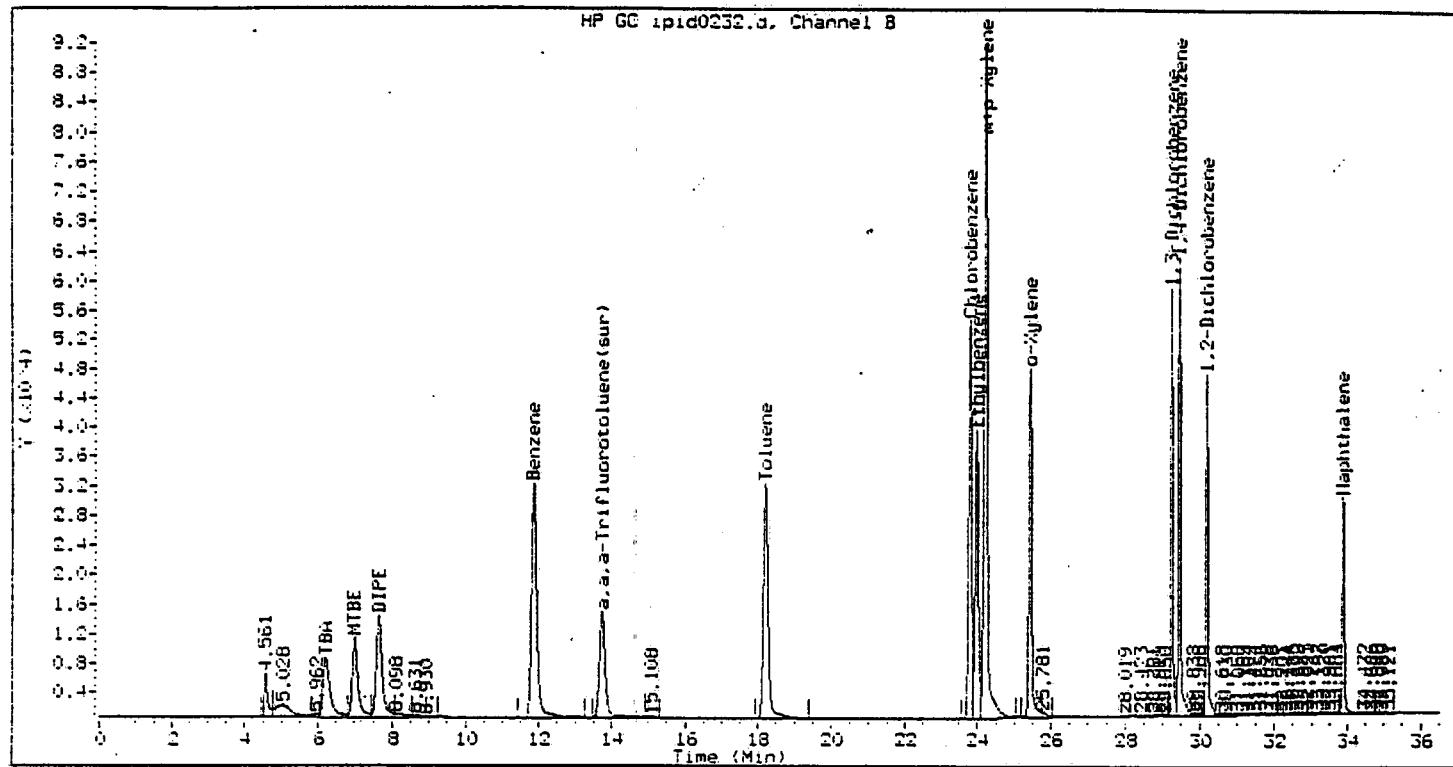


Method : /chem/VOAGC3.i/602/04-02-01/02apr01.b/602_01.m
Sample Info : ISTD010
Lab ID : ISTD010
Inj Date : 02-APR-2001 18:13
Operator : VV
Cond Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_3

Compounds	RT	EXP RT	DLT RT	CONCENTRATIONS	
				ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.431	25.428	0.003	623403	9.862 9.862
m+p-Xylene	24.222	24.220	0.002	1441095	19.386 19.386
TBA	6.205	6.201	0.004	267545	1007.085 1007.085
MTBE	7.004	7.001	0.004	292646	10.075 10.075
DIPPE	7.649	7.643	0.006	382543	10.111 10.111
Benzene	11.871	11.867	0.005	842572	10.034 10.034
Toluene	18.211	18.208	0.004	753636	10.140 10.140
Chlorobenzene	23.801	23.798	0.003	773627	9.940 9.940
Ethylbenzene	23.985	23.983	0.002	599624	9.939 9.939

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	2064498	29.231	29.231
1,3-Dichlorobenzene	29.244	29.241	0.003	539642	9.968	9.968
1,4-Dichlorobenzene	29.455	29.451	0.004	633762	9.710	9.710
1,2-Dichlorobenzene	30.198	30.195	0.004	453761	9.857	9.857
Naphthalene	33.877	33.873	0.004	336102	9.648	9.648
a,a,a-Trifluorotoluene(sur)	13.748	13.744	0.004	836551	30.295	30.295



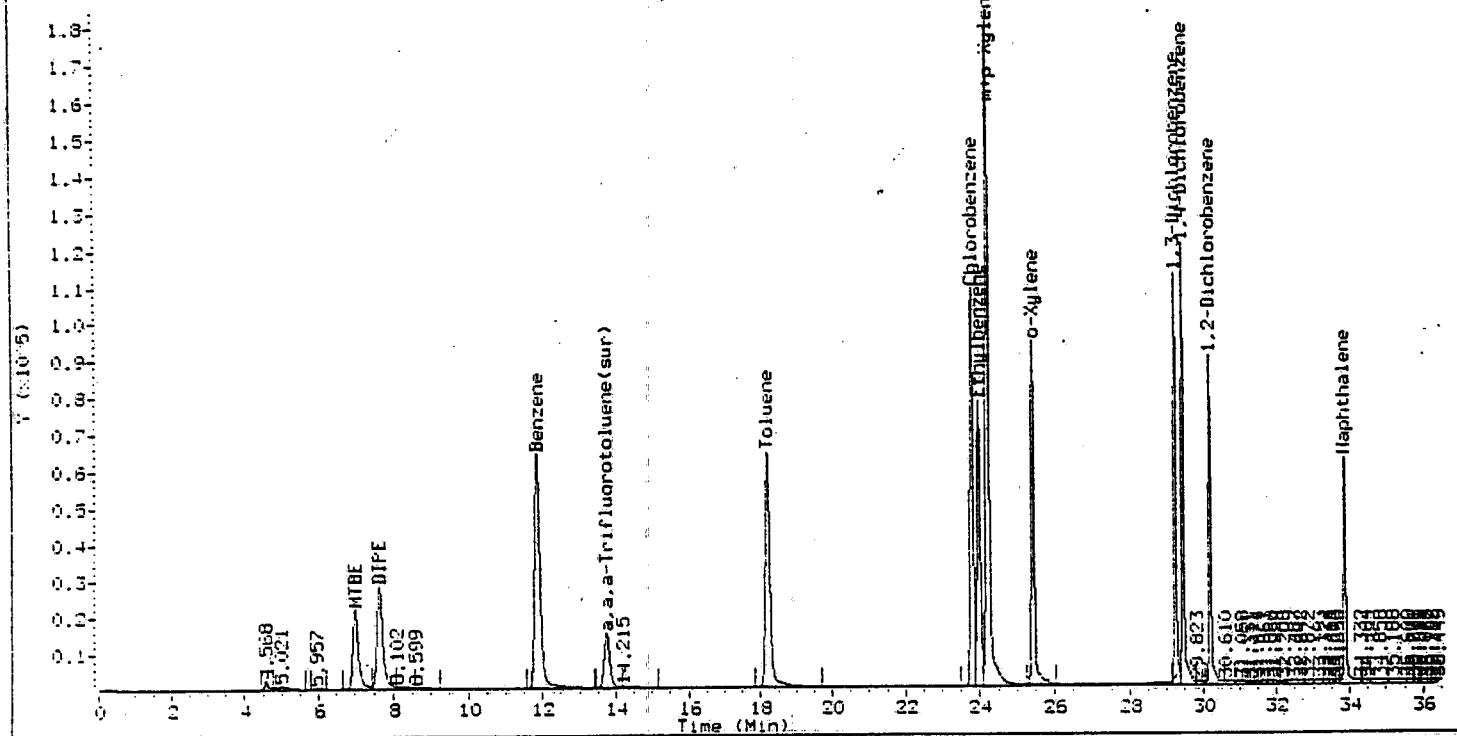
Method : /chem/VOAGC3.i/602/04-02-01/02apr01.b/602_01.m
Sample Info : ISTD020
Lab ID : ISTD020
Inst ID : VOAGC3.i
Inj Date : 02-APR-2001 09:56
Dil Factor : 1
Operator : VV
Sample Matrix : WATER
Cpnd Sublist: all
Sample Type: CALIB_4

Compounds	RT	EXP RT	DLT RT	CONCENTRATIONS	
				ON-COLUMN (ug/L)	FINAL (ug/L)
o-Xylene	25.428	25.428	0.000	1356759	19.882 19.882
m+p-Xylene	24.220	24.220	0.000	2874033	38.663 38.663
TBA	6.201	6.201	0.000	563113	2119.653 2119.653
MTBE	7.001	7.001	0.000	595406	20.498 20.498
DIP	7.643	7.643	0.000	771808	20.399 20.399
Benzene	11.867	11.867	0.000	1664347	19.820 19.820
Toluene	18.208	18.208	0.000	1478637	19.894 19.894
Chlorobenzene	23.798	23.798	0.000	1531605	19.678 19.678
Ethylbenzene	23.983	23.983	0.000	1185306	19.646 19.646

CONCENTRATIONS
ON-COLUMN FINAL

Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
Cyclohexene (Total)	25.019	25.019	0.000	4130792	58.487	58.487
o-Dichlorobenzene	29.241	29.241	0.000	1120350	20.694	20.694
m,Dichlorobenzene	29.451	29.451	0.000	1253024	19.197	19.197
p-Dichlorobenzene	30.195	30.195	0.000	956342	20.774	20.774
Naphthalene	33.873	33.873	0.000	646321	18.553	18.553
a,a-Trifluorotoluene(sur)	13.744	13.744	0.000	842042	30.493	30.493

HP GC repid0237.d, Channel B



Method : /chem/VOAGC3.i/602/04-02-01/02apr01.b/602_01.m
 Sample Info : ISTD040
 Lab ID : ISTD040
 Inj Date : 02-APR-2001 14:13
 Operator : VV
 Cnd Sublist: all

Inst ID : VOAGC3.i
Dil Factor : 1
Sample Matrix : WATER
Sample Type: CALIB_5

CONCENTRATIONS

ON-COLUMN FINAL

Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
o-Xylene	25.429	25.428	0.000	2486193	39.331	39.331
m+p-Xylene	24.221	24.220	0.001	6229159	83.797	83.797
MTBE	7.006	7.001	0.005	1131726	38.962	38.962
DIPF	7.648	7.643	0.005	1514289	40.023	40.023
Benzene	11.869	11.867	0.003	3355511	39.960	39.960
Toluene	18.209	18.208	0.001	2962028	39.853	39.853
Chlorobenzene	23.798	23.798	0.000	3066497	39.399	39.399
Ethylbenzene	23.984	23.983	0.001	2351814	38.981	38.981
Xylene (Total)	25.019	25.019	0.000	8715352	123.398	123.398

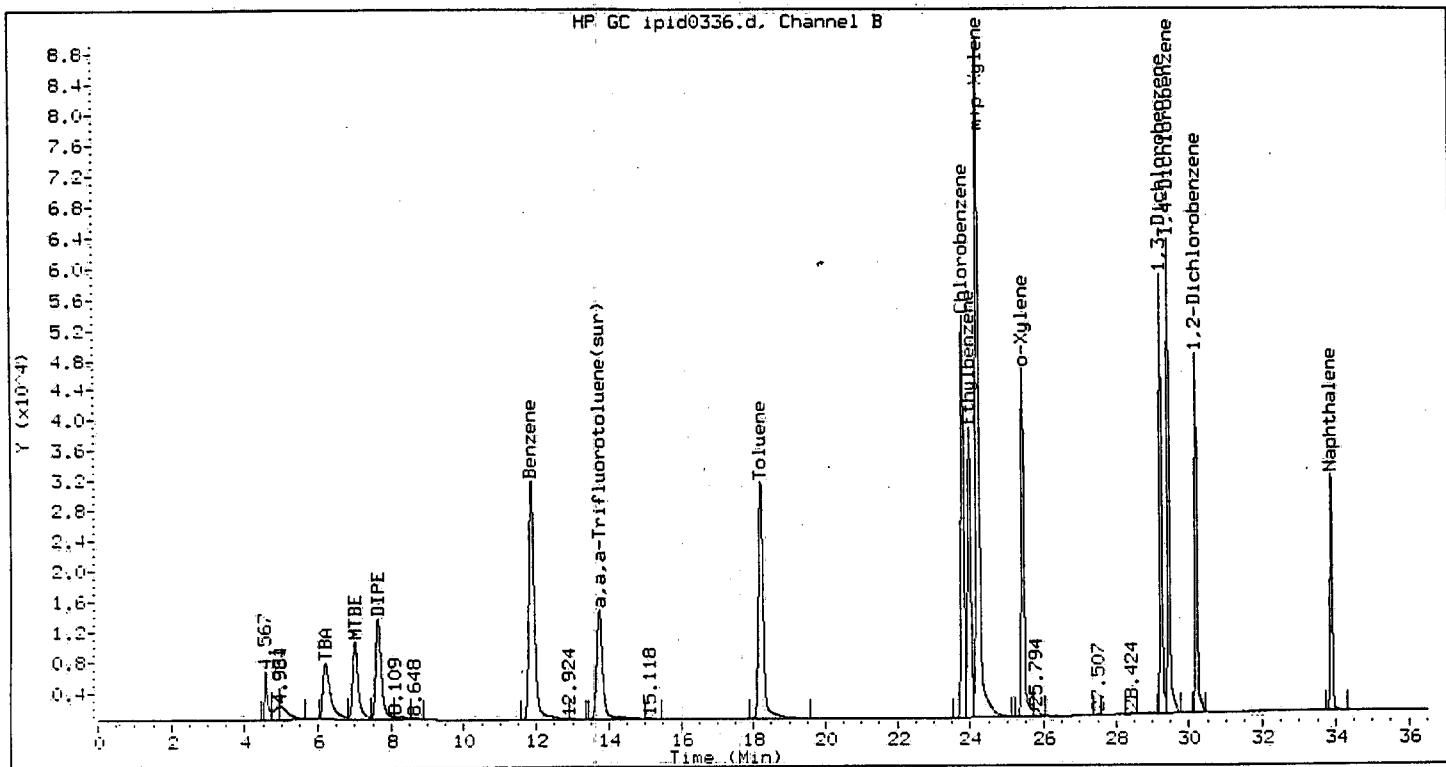
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
1,3-Dichlorobenzene	29.241	29.241	0.000	2003749	37.011	37.011
1,4-Dichlorobenzene	29.452	29.451	0.001	2508632	38.434	38.434
1,2-Dichlorobenzene	30.196	30.195	0.001	1878676	40.809	40.809
Naphthalene	33.873	33.873	0.000	1428652	41.010	41.010
a,a,a-Trifluorotoluene(sur)	13.747	13.744	0.003	825561	29.897	29.897

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC3 Calibration Date: 04/06/01 Time: 1006
 Lab File ID: IPID0336 Init. Calib. Date(s): 04/02/01 04/02/01
 Heated Purge: (Y/N) N Init. Calib. Times: 0956 1813

COMPOUND	RRF	RRF20	MIN RRF	%D	MAX %D
TBA **	265.66	262.46		1.2	40.0
MTBE	29047.15	27076.20		6.8	40.0
DIPE	37835.66	36034.60		4.8	40.0
Benzene	83972.41	82176.90		2.1	23.0
Toluene	74324.11	73472.55		1.1	22.5
Chlorobenzene	77832.81	74886.35		3.8	19.5
Ethylbenzene	60332.67	58357.55		3.3	37.0
Xylene (Total)	70628.09	67484.95		4.4	40.0
1,3-Dichlorobenzene	54138.56	55687.00		-2.9	27.5
1,4-Dichlorobenzene	65271.27	62276.00		4.6	30.5
1,2-Dichlorobenzene	46035.86	46985.40		-2.1	32.0
Naphthalene	34836.41	32071.80		7.9	40.0
a,a,a-Trifluorotoluene (sur)	27613.88	28263.70		-2.4	20.0

** TBA Continuing Calibration Level is RF2000.



Method : /chem/VOAGC3.i/602/04-02-01/06apr01.b/602_01.m

Sample Info : ISTD020

Lab ID : ISTD020

Inst. ID : VOAGC3.i

Inj Date : 06-APR-2001 10:06

Dil Factor : 1

Operator : VV

Sample Matrix : WATER

Cpnd Sublist: all

Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	CONCENTRATIONS	
				ON-COLUMN	FINAL
	(ug/L)	(ug/L)			
o-Xylene	25.431	25.431	0.000	1211441	19.165
m+p-Xylene	24.223	24.223	0.000	2837656	38.173
TBA	6.203	6.203	0.000	524915	1975.869
MTBE	7.004	7.004	0.000	541524	18.643
DIPE	7.647	7.647	0.000	720692	19.048
Benzene	11.871	11.871	0.000	1643538	19.572
Toluene	18.213	18.213	0.000	1469451	19.771
chlorobenzene	23.802	23.802	0.000	1497727	19.243
Ethylbenzene	23.986	23.986	0.000	1167151	19.345

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/L)	FINAL (ug/L)
Xylene (Total)	25.019	25.019	0.000	4049097	57.330	57.330
1,3-Dichlorobenzene	29.244	29.244	0.000	1113740	20.572	20.572
1,4-Dichlorobenzene	29.455	29.455	0.000	1245520	19.082	19.082
1,2-Dichlorobenzene	30.198	30.198	0.000	939708	20.413	20.413
Naphthalene	33.877	33.877	0.000	641436	18.413	18.413
a,a,a-Trifluorotoluene(sur)	13.749	13.749	0.000	847911	30.706	30.706

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: WATER

Level: LOW

Lab Job No: J519

LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
01 IG096	100			0
02 266473	100			0
03 266474	100			0
04 266475	101			0
05 266477	97			0
06 266478	100			0
07 IG096A	101			0
08 266479	102			0
09 266479MS	98			0
10 266479MSD	102			0
11 266480	99			0
12 266481	100			0
13 266482	100			0
14 266483	102			0
15 266484	102			0
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

QC LIMITS

SMC1 = a,a,a-Trifluorotoluene (68-134)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 266479

Level: LOW

MS Sample from Lab Job No: J519

QA Batch: 7172

Compound	MS %	BS %	REC.	LIMITS
Benzene	95	95		39-150
Toluene	95	95		46-148
Chlorobenzene	95	100		55-135
Ethylbenzene	94	95		32-160
1,3-Dichlorobenzene	100	100		50-141
1,4-Dichlorobenzene	90	90		42-143
1,2-Dichlorobenzene	95	95		37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS: _____

VOLATILE SPIKE RECOVERY SUMMARY
METHOD 602

Matrix: WATER

Matrix Spike - Lab Sample No.: 266758

Level: LOW

MS Sample from Lab Job No: J557

QA Batch: 7173

Compound	MS % REC.	BS % REC.	LIMITS
Benzene	96	95	39-150
Toluene	94	95	46-148
Chlorobenzene	100	95	55-135
Ethylbenzene	96	95	32-160
1, 3-Dichlorobenzene	100	105	50-141
1, 4-Dichlorobenzene	120	90	42-143
1, 2-Dichlorobenzene	100	95	37-154

* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS: _____